T.E.B.—THE INFLUENCE OF A TEACHER OF MEDICINE ON A GENERATION OF PHYSICIANS

 The purpose of this report is to examine the influence of Dr. Thomas Evans Brittingham III, called T.E.B. by his colleagues, on a generation of Vanderbilt medical students and residents. The focus is not just the excitement of new learning at an impressionable period of their lives, but the long-range influence on how they practiced medicine for the next fifty years.

 I. T.E.B., TEACHER OF MEDICINE

 Brittingham dominated the clinical teaching experience of Vanderbilt medical residents and third-year medical students from 1963 to 1980. His teaching method is best described by what it was not. Whether targeted at students, residents, or mature physicians, T.E.B.’s teaching did not depend on the transmission of facts. It was not designed to impart an organized body of information on a defined subject. He never presented a table or a graph of data. He did not use slides. He never concentrated on the latest diagnostic tool or the most recent therapeutic wonder. He did not speak about populations, averages, or statistical significance. In short, his teaching method was radically different from typical medical education.

 Instead, Brittingham’s teaching centered on the clinical details of a single patient. At the bedside, at morning report, at professor’s rounds, at death conferences, at clinical pathologic conferences (CPC’s), or at Medical Grand Rounds, the center of attention was the careful examination of one patient at a time. He delighted in hearing patients describe their symptoms in their own language. (1)

 The *joie de vivre* he exhibited in practicing medicine was an energetic, infectious force. It drew you in; it called upon the best in you; it provided an example to emulate. You wanted to engage with him; you didn’t want to disappoint him; you never wanted to be less dedicated than he. (2)

 Teaching Rounds

 T.E.B.’s first assignment as a teaching physician at Vanderbilt Hospital was on the C-3100 wing (now part of Medical Center North). Charley O’Donovan was the intern and Bill Schaffner was the resident. Dr. Brittingham’s reputation—of pursuing every detail about a patient—had preceded his arrival.

 O’Donovan and Schaffner prepared diligently to present their patient to their new mentor. When O’Donovan presented the history, he mentioned a previous thyroid problem which he and Schaffner had not felt to be relevant to the current illness. T.E.B. interrupted and asked about the details. The intern and resident had been scooped. They were unaware that T.E.B. had obtained the patient’s name the day before, had met with the patient and her family, had taken his own medical history, and had examined her. When he learned of a previous hospitalization at Baptist Hospital for a thyroid problem, he had also reviewed her medical records there. He was compelled to show them what they could learn by being thorough.

 “I remember vividly that challenging first meeting with T.E.B. It was over fifty years ago,” recalls Schaffner. (2)

 Another former medical resident said, “We watched T.E.B. talk to patients and family members. He understood that people in the hospital were emotionally distraught. He taught us to care about them. He taught by example. T.E.B. let the patient know that he was there to listen. Instead of approaching a new patient and saying, ‘I understand that you’re here because of belly pain, when did the pain begin?’ T.E.B. asked personal questions before he inquired about the clinical history: ‘Where are you from? Tell me about your job, your family. Why do you think you’re here? What do you think is wrong with you?’ He told us, ‘The patient can tell you what’s wrong with himself, if you just listen to him.’“ (3)

 For a conference, T.E.B. had always done his homework; he brought a stack of journals with bookmarks. He was going to work harder than anyone in the room. On occasion he abruptly jumped up from the conference table and ran across the hall to his office. There he kept notes of all patients on 3” x 5” index cards. In addition, his office contained multiple disheveled stacks, several feet high, of articles he had torn from medical journals. He knew instinctively where each article lay. He returned triumphantly with an index card of a similar patient or an article relevant to the discussion.

 The Iconoclast

 Brittingham embraced new medical knowledge, but he wanted to see proof of its effectiveness and safety before using it. Dr. John Sergent told me,

 “T.E.B. was the ultimate iconoclast—he challenged every old

 convention and every new test. He didn't believe in using

 chemotherapy to treat lymphomas. He didn’t use steroids for

 treatment of lupus or other autoimmune disorders. He believed that

 diabetic kidney disease was due to an immune reaction to insulin.

 He railed against the then-new technique of cardiac catheterization,

 because a few of the early patients who underwent this procedure

 at Vanderbilt had died. Eventually he was proven wrong on each

 of those issues. On the other hand, he taught us something that

 you cannot get from books or journals. He taught us that we were

 completely responsible for our patients.” (4)

 The Death Conference

 T.E.B.’s weekly death conferences were acclaimed for their teaching value. Mortality conferences at other medical centers had ominous reputations, because they were implicit indictments of the medical care that had been provided. After all, the patient had died. The residents were uneasy because they were held accountable for their actions. T.E.B. did something very different. The doctors on the case were only identified if they volunteered information. Participants openly shared their thoughts as they worked through the complexities of the case. The point was not what one did, but why the decision was made at the time. No one wanted to be identified as a lesser physician. T.E.B. didn’t think you taught residents how to be better doctors by flagellating them.

 The death conferences taught responsibility, but usually someone had made a mistake—and that person knew it. Despite the anonymous environment, the conference could intimidate the resident who was involved. Dr. Larry Wolfe remembers a particular conference during his year as chief resident. T.E.B. presented the case of a man with chest pain who was brought to the Vanderbilt Emergency Room. Suspecting a heart attack, the resident on duty tried to admit him to the hospital, but no bed was available. The patient was a veteran. Accordingly, his family was instructed to take him across the street to the Veterans Administration (VA) Hospital. He died shortly after arriving there. T.E.B. learned that the family had no vehicle. They had dragged him by the shoulders across the street and through the VA parking lot. T.E.B. was furious that no one had arranged appropriate transportation. The embarrassed resident sat sweating while T.E.B. admonished him—anonymously. (5)

 Medical Grand Rounds

 When Dr. David Gregory was a second-year medical resident, a middle-aged woman from Hickman County was under his care. She had vague complaints: had lost weight, just didn’t feel well. X-rays revealed a narrowed segment in a ureter. Since she had a positive tuberculin skin test, urinary tract tuberculosis was considered. Gregory started treatment with INH (isoniazid), a recently available and highly effective drug against tuberculosis. She developed spiking fevers and drenching sweats. A liver scan showed a possible abscess in the liver. Gregory asked for a surgical consultation.

 Dr. H. William Scott, chief of surgery at Vanderbilt, pronounced that this woman needed the ultimate diagnostic test, surgical exploration of the abdomen. The evening before the scheduled operation, a light kindled in Gregory’s brain: maybe this was a drug-induced fever. He stopped INH, and the next day her temperature was normal. Risking the wrath of Dr. Scott, Gregory canceled the surgery. He waited a few days, then gave the patient one-sixth the usual dose of INH. She had a prompt rigor, and her temperature rocketed to 103. The next day her temperature was normal. Now Gregory was convinced that his patient had a drug fever. He had made her “sick as a dog” with INH.

 The case was selected for Medical Grand Rounds, to be discussed by T.E.B. A nurse wheeled the patient into the ancient amphitheater with steeply-rising rows of seats. Everyone in the amphitheater peered down as Gregory presented the history. T.E.B. discussed brilliantly how well-meaning doctors made people sick with some drugs. As he concluded, he chuckled and said, ”Well, I’ve got a positive tuberculin skin test myself,” holding up his arm so everyone could see the big red spot on his forearm. Still chuckling, he said, “You smart doctors all know that when you have a positive tuberculin skin test you’re supposed to take INH for a year to prevent active TB. So I went to the pharmacy and got this bottle of INH.”

 He poured three tablets from the bottle into a little paper cup, placed a tablet to his lips, then stopped. He shook his head and replaced the tablet in the cup. He walked to the corner of the amphitheater, threw the cup of pills into the trashcan, and sat down. T.E.B. didn’t hesitate to use theatrics to teach. (6)

 II. T.E.B., PRACTITIONER OF MEDICINE

 The House Call

 Every Friday afternoon during his seventeen-year tenure at Vanderbilt, T.E.B. practiced in the medical clinic at Nashville General Hospital. There he attended to the care of his personal patients. After he left Vanderbilt, his physician protégés assumed the care of these patients. Soon thereafter, the nurse in the clinic informed one of the doctors that Dr. Brittingham had made a monthly visit to a homebound patient and delivered a supply of medicines from the closet of drug samples. The physician drove to the patient’s home in a nearby public housing project. A frail elderly woman opened the door and graciously accepted the medications. Then, with a puzzled look on her face, she peered around the legs of the earnest young doctor. “Dr. Brittingham always brought groceries too,” she said. (7)

 T.E.B. drove a rusty, faded gray 1958 Thunderbird. It attracted no special attention when he made house calls in the projects. A boom box filled the back seat; its purpose was to replace the non-functioning car radio.

 He regularly wore the same clothes in the hospital, a button-down blue or white oxford dress shirt, a striped rep tie, and charcoal gray slacks. He pulled the sleeves up on his forearms, rather than rolling them up.

 Though he always greeted people enthusiastically, chatted, and chuckled with them, T.E.B. was not a social person. He was open about medical matters but closed on others. Few residents spent time with him outside the hospital.

 T.E.B. and his wife Dotsie frequently invited a group of residents and their wives to dinner at their home on Curtiswood Lane. They knew everyone’s names and greeted each guest graciously. At some point during the evening, T.E.B. disappeared…possibly to the hospital, no one ever knew.

 T.E.B.’s handwriting was illegible. Only when he used his vintage Smith-Corona portable typewriter could one decipher his notes. His clinic notes were brief: They contained the patient’s chief complaint, blood pressure, a brief history and exam, and closed with a numerical dollar amount—how much money he had given the patient—for medicines, groceries, and other essentials.

 T.E.B. hated the labeling of a patient as a hypochondriac. He loved proving that a physical problem was present. Physicians frequently asked him to consult on such a patient because they knew he would leave no stone unturned to disprove that label.

 T.E.B.’s Practice

Brittingham had an unconventional clinic practice for an academic physician. He visited many of his patients in their homes. B-12 injections were used liberally as harmless placebos. Any patient who complained of weakness or fatigue received a prescription for a small dose of thyroid supplement. He paid little attention to thyroid blood tests. He had iconoclastic views regarding kidney biopsy, hemodialysis, and pulmonary artery catheters. Some of his patients crippled by rheumatoid arthritis received only salicylate (aspirin) therapy. One was hospitalized with salicylate toxicity. He liked to say, “I’m just a simple country doctor.”

 Controversies

 T.E.B. had heated discussions with his friend, Dr. Robert Collins in Pathology, about the nature of Hodgkin’s disease. Brittingham believed that Hodgkin’s disease was a reactive inflammatory process, probably an infection, and he treated it as such. When he looked at the microscopic slides, he saw numerous inflammatory cells. He was adamant against poisoning any of his patients with chemotherapy, he was looking for specific evidence. Collins believed that the microscopic hallmark of Hodgkins’s disease, the elusive multi-nucleated Reed-Sternberg cell, which stared at you like an owl’s eye, was definitely a neoplasm. T.E.B. would have nothing of it. Collins told his colleague, Dr. Agnes Fogo, that he never saw a person look so heartbroken as T.E.B., when a young man with Hodgkin’s disease had died. T.E.B. had treated him for infection. He finally realized that his treatment hadn’t worked, and that maybe he was wrong. (8)

 On what were T.E.B.’s opinions about hematologic malignancies based? He knew that other members of the hematology department were treating with chemotherapy and radiotherapy at that time, despite the absence of what he considered rigorous studies. He was skeptical that this treatment did any good, and thought that they made people feel worse. If chemotherapy didn’t work, side effects would be unacceptable. Later it became clear that chemotherapy was effective in many lymphomas and curative in some. (9) The MOPP studies at the NIH showed that chemotherapy was often dramatically effective in Hodgkin’s disease. (10)

 T.E.B. typed an eight-page single-spaced letter to the family of another patient who had died of lymphoma. He described the agonizing frustration he had felt during the care of this illness and acknowledged his mistakes in the treatment of this patient, who had also been a friend and colleague. As a teaching effort he sent copies of the letter to the residents who had participated in the treatment. (11)

III. T.E.B.’S INFLUENCE

 “I learned from T.E.B. that practice was a pure pleasure, not a chore or a way to make money,” said Dr. Jimmy Sullivan. “His influence was that my only obligation was to the patient. (12)

 Dr. Sergent recalls,

 “T.E.B.’s influence surfaced early, when I was an intern

 (now sometimes called first year resident) at Johns Hopkins

 Hospital. One night I admitted a sick woman. As I was writing

 up her chart about 3 am., I realized I had forgotten to do the

 pelvic exam, a requirement on all female patients. Her illness did

 not involve the urinary or genital tracts. I started to write ‘Pelvic:

 deferred until morning,’ but then I thought about Dr. Brittingham.

 I knew that if he ever became a visiting professor at Hopkins,

 he would see that chart, and he would be ashamed of me.

 So with help from the nurse I got that sleepy lady out of bed at 4 a.m. and did a pelvic exam—which was perfectly normal.” (4)

 “His care and compassion for the poor people he treated at Nashville General Hospital influenced me,” said Dr. Gregory. “He was independently wealthy, but except for his Brooks Brothers clothes there were no outward signs of affluence. He felt comfortable with poor people and cared for them as skillfully and as thoroughly as if he were taking care of the chancellor.” (6)

 Dr. Bill Stone added, “I fell in love with medicine early, when I was a medical student at Hopkins,” said Bill Stone. “I fell in love with people who were intensive about it and cared. T.E.B. cared.” (13)

 Dr. Karl Van Devender related that, during his first years in practice in Nashville, new private practice physicians rotated the care of patients who came to the emergency rooms of private hospitals, required hospitalization, and didn’t have a personal physician. It was long before the days of hospitalists. Van Devender narrates,

 “An emergency room would call during the night and inform

 me of a patient who would be under my care. The emergency

 room physician might say that the patient was stable and I could

 see him in the morning. I got it in my mind that some night

 Dr. Brittingham was going to disguise himself as one of these

 patients to find whether I would get out of bed and see him.

 So, during those years, I always got up and saw those patients,

 out of fear that it would be T.E.B., checking if I was caring for them as he had taught me.” (14)

 Dr. Clif Cleaveland related,

 “T.E.B.’s standards were high, and he called on us to emulate them.

 He sought information from anyone— when I was chief resident,

 he once asked for my opinion on a difficult case. He helped me

 define my approach to sick people. He viewed himself as a fellow

 traveler with me. The doctor I tried to be in my thirty-five years

 of practice was based on his lessons and inspiration. I recall the

 monthly cartoon *Watchbird*. A watchbird sat on your shoulder

 and prevented you from doing anything wrong. I viewed

 Dr. Brittingham as a watchbird on my shoulder. We named

 our son after him: Thomas Britt Cleveland.” (15)

 A Day with a Hospitalist

 Cleaveland designated his former medical partner, Dr. David Dodson, as the doctor who most typified practicing medicine with Brittingham principles. Dodson had been both a medical student and resident under T.E.B. In January, 2016, I shadowed Dodson for a day as he made his rounds as a hospitalist at Memorial Hospital in Chattanooga. He spent at least twenty minutes in each patient’s room. Starting at the foot of the bed, he examined the feet, legs, abdomen, heart, and lungs of each. Sometimes assistance from a family member or nurse was needed to position a weak or unconscious patient for adequate chest exam. He looked in each mouth with a tiny LED flashlight. “I see as many patients as my colleagues, but it takes me longer,” says Dodson. “That’s why I’m in the hospital two to three hours longer than others.”

 Dodson talks about *doctoring*. “Doctoring is just listening and paying attention,” he says. (16)

 Dodson’s father was a physician, and Dodson’s instincts, like those of many others in this book, preceded contact with T.E.B.. Like-minded people are attracted to one another and therefore learn from like-minded exemplars, passing their attitudes to future generations. This book makes no claim that T.E.B. was the originator or sole practitioner of *doctoring*. The word *doctor* is derived from the Latin verb *docere, to teach*. *Doctoring* is widespread and centuries old. T.E.B. was a shining example, but many possess these latent qualities and actualize them.

IV. CHANGES IN MEDICAL PRACTICE

Specialization in Medicine

 Dodson discussed the knowledge explosion during the past 35 years. “It’s no longer possible to get your arms around all twelve sub-specialties of internal medicine, as Dr.Brittingham and a few other Vanderbilt faculty did in the 1970’s. That’s why so many of our colleagues have entered sub-specialties.”

 When asked about the sub-specialists’ relative lack of interest in the whole patient as much as the technical procedure they are consulted to perform, Dodson replied, “I actually feel sorry for them. They’re missing out on the doctoring part of medicine. I appreciate the technology that’s available. We can do more now than we could in Brittingham’s day. But a considerable amount of my time is spent in explaining procedures when other doctors haven’t spent enough time answering questions.“ (16)

 Specialization in medicine can be a two-edged sword. A former Vanderbilt resident remembers a patient admitted to the hospital with tetanus. The patient had been under the care of an ophthalmologist. The ophthalmologist had neglected to arrange for immunizing the patient against tetanus. T.E.B. voiced criticism. Of course T.E.B. was a specialist himself, a hematologist. He didn’t disapprove of becoming an expert in an area, but he disapproved of any one who forgot that first he was a doctor, then a specialist. His position was that no matter how specialized you were, you should make sure your patient is immunized against tetanus

The Physical Exam

 Dr. Frank Boehm remembers an incident that happened fifty years ago, when he was a medical student, as though it were yesterday, and says he will remember it for the rest of his life. At 3 a.m, he was assigned a patient who had entered the hospital coughing up blood. The next morning T.E.B. made rounds with a group of students. After Boehm presented his history and physical exam, Dr. Brittingham sat down at the bedside, his eyes level with those of the patient, and asked several questions. When the patient spoke, T.E.B. never interrupted, even though some of the patient’s answers were lengthy and convoluted. By the end of these questions, everyone knew more about the patient’s illness and life. Dr. Brittingham asked the patient to sit up. Sitting on the bed behind the patient, he placed the palm of his left hand flat on the upper right side of the patient’s back. He briskly tapped the back of his middle finger, between the two extended knuckles, with the tip of his bent right third finger, moving downward about an inch between percussions. Every sharp, forceful flexion of his right wrist produced a resonant, high-pitched sound—indicating normal air-filled lung—until he reached the middle of the chest. Suddenly the percussion note changed to dull. With a jubilant look on his face, he turned to the students behind him and asked, “Did you hear that? Move closer so you can hear each percussion note.”

 The students edged forward. Holding a ballpoint pen in his mouth, Dr. Brittingham percussed from above down to the upper margin of the dull note, then drew an arc of blue ink on the patient’s skin exactly where the percussion sound changed to dull. He repeated this maneuver starting at the spine, moving from left to right, sketching a blue arc where the percussion note changed; then starting at the right margin of the chest, moving from right to left; then at the bottom, advancing his percussion from below upward. Joining the four arcs, Dr. Brittingham had outlined an area of dullness in the middle of the right lung—indicating abnormal, non-aerated lung—about the diameter of a baseball. And when a chest X-ray was taken later that morning, a mass was evident in the right lung exactly where Dr. Brittingham had drawn his circle on the skin. (17)

 Today one is tempted to consider that if the chest X-ray had been made first, the student’s physical exam would have been superfluous. A CT-scan of the chest, a bronchoscopy and some laboratory tests would have supplied all the information needed to diagnose and treat the patient with a high degree of precision. What would T.E.B. have thought?

 I ask the reader to ponder: What do we value: a physician’s hand on the patient’s chest, or a chest X-ray? Which creates a greater bond between the patient and the physician? What is the significance of the patient-physician relationship, anyway? It plays a role in limiting medical malpractice lawsuits, but what does it add to objective analysis of mortality, morbidity, patient satisfaction, or costs? Was the influence of T.E.B. just of historical significance for a generation of disciples? Or have the fundamentals of medicine persisted?

 The Genie’s Out of the Bottle

 Medical practice has improved since T.E.B. left Vanderbilt, but some of the results are conflicting. With specialization and sub-specialization, care has fragmented among several physicians, often with no one assuming responsibility for the patient; endoscopy and technological advances in imaging have reduced the importance of physicians’ bedside skills; direct-to-patient TV advertising has been a windfall for pharmaceutical companies but has raised the prices of drugs; and the designation of patients as markets for profit-seeking companies has turned healing into just another business venture.

 T.E.B. was realistic about his wariness of changes. He used the best methods available, but he was skeptical until they were proven. Most of the doctors I interviewed thought T.E.B. would have accepted changes that were beneficial for his patients, he would have looked in the scope with the endoscopist, and he would have thoughtfully chosen which battles to fight.

 Today one might ask, “What’s that stethoscope around your neck, are you going to be on TV?”

 T.E.B. would chuckle, and say, “Well, you’re a lot smarter than me, but I still get a lot of information from my stethoscope.” (4)

 Soon a portable ultrasound on a smartphone app will be in the physician’s pocket. Every doctor will be able to do an echocardiogram at the bedside, scan the thyroid for nodules, determine the size of the liver and spleen, and examine the fetus in utero.

 The electronic medical record has helped to meet requirements for billing, but there is disagreement about its overall value. T.E.B. taught his students to look at the patient during a conversation. Looking at a computer while talking to a patient removes the effect of body language on the interaction. Some doctors are concerned that the extensive boilerplate templates are redundant and not informative. They long for the days when physicians wrote perceptive notes in the record, not just copy and paste previous ones. (18)

 “We’re not just grumpy old men, we’re concerned about our profession.

Some of us thought it was a calling, now we see many who look at it as a job. That’s a hell of a difference.” (2)

 The Marvels and Limitations of Modern Medicine

 The following story illustrates the limitations of technology and the limitations of shared physician responsibility. The patient in the intensive care unit was critically ill with bacterial endocarditis, an infection of the blood stream. Bacterial endocarditis results from a colony of bacteria living in a protective shelter on a heart valve, in this case a floppy mitral valve which didn’t function normally. Numerous cultures of the blood had identified the responsible organism. Despite appropriate treatment with antibiotics, shaking chills and fevers had persisted over two weeks. The doctors had considered an abscess at the valve ring, the base of the valve leaflet where the valve attaches to the heart muscle, but an echocardiogram had indicated no such lesion. The team of physicians included a pulmonologist, a cardiologist, a general surgeon, a thoracic surgeon, and all their fellows and residents. They were getting nowhere.

 Another consultant, an infectious disease specialist, was called. The consultant, Dr.John Leonard, reviewed the history and examined the patient. He conceded that he also did not know why the illness persisted. He recognized, however, that not one of these accomplished specialists, each attending to his own area of expertise, had assumed total responsibility for the patient’s care. He decided to take charge.

 First, he went to the literature, where he found that the majority of patients who had persistent fever after appropriate treatment for endocarditis did have an abscess at the valve ring. Sometimes it was difficult to find by standard echocardiogram, but it was often visible on a transesophageal echocardiogram (an echocardiogram where the ultrasound probe is swallowed and positioned immediately behind the heart). This test was performed, but also showed no evidence of an abscess at the valve ring.

 Leonard went to the literature again, this time to the radiology literature. Here he found that transesophageal echocardiography had only 80% sensitivity in detecting a valve ring abscess. In other words, a transesophageal echocardiogram could be negative 20% of the time when such a lesion was actually present. Armed with this information, Leonard felt so certain of the diagnosis that he persuaded—yes, persuaded—the thoracic surgeon to operate. A valve ring abscess was found and drained, and the patient got well. (19)

 Was Leonard’s tenacity just a coincidence? He had been a disciple of T.E.B. both as a medical student and as chief medical resident. After T.E.B. left Vanderbilt, he had assumed T.E.B.’s job as director of the medical residency program for the next twenty-one years. As T.E.B.’s students become teachers, they nurture and influence subsequent generations of young physicians. Tenacity, a complete history, acknowledgement of the patient as a person with an illness, a careful physical exam, listening to the patient and family, appreciation of the patient’s social situation, humanity, humility—T.E.B.’s principles live on.

NOTES:

1. Dyer, Eric. Unpublished manuscript
2. Interview with Dr. William Schaffner, 2/16/2016
3. Interview with Dr. Mark Houston,12/28/2015
4. Interview with Dr. John Sergent, 10/14/2015. Chief Medical Resident 1971-72, Director of Medical Residency Program 2003-2013
5. Interview with Dr. Lawrence Wolfe, 9/9/2015
6. Interview with Dr. David Gregory, 2/8/2016

7. Cleaveland, Clif. Sacred Space. Stories from a Life in Medicine, p. 86. Published by American College of Physicians. Philadelphia, PA. 1998

8. Interview with Dr. Agnes Fogo, 12/30/2015

9. Interview with Dr. Stan Graber, 10/28/2015

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11. Interview with Dr. Alan Cohen, 3/23/2016

12. Interview with Dr. Jimmy Sullivan, 10/19/2015

13. Interview with Dr. William Stone, 10/1/2015

14. Interview with Dr. Karl Van Devender, 1/29/2016

15. Telephone interview with Dr. Clif Cleaveland, 11/21/2015

16. Interviews with Dr. David Dodson, 12/8/2015 and 1/15/2016

17. Interview with Dr. Frank Boehm, 1/27/2016

18. Interview with Dr. Bo Sheller, 10/15/2015

19. Interview with Dr. John Leonard, 2/25/2016