



The BEAM

Winter 2013

Mississippi Society of Radiologic Technologists
Affiliated with the American Society of Radiologic Technologists

Inside this issue:

Letter from the MSRT President	1
District Report	2
Technologist of the Year: Mark Gray	2
R.T. in D.C. Info	3
MSRT Business Meeting Minutes	4
MSRT Conference Speakers	11
Student Technologists of the Year	12
Student Manuscripts	13
1st Place Student Manuscript	14
1st Place R.T. Manuscript	19
Student Exhibits	25
Student Prep Bowl	33
Student Meeting	38
Presidential Awards Ceremony	46
Costume Party	53
Letter from the Editor	74

Letter from the MSRT President

I would like to express my gratitude to everyone in having confidence in my abilities of fulfilling the duties of president of the MSRT for 2014. I am humbled and do not take this role lightly. As we welcome in a new year, I also welcome each of you to become an active member of the MSRT. As an educator, I believe life-long learning leads to enhanced professionalism.

My goals and visions for the MSRT include:

- * Increasing technologist participation
- * Increasing student participation
- * Increasing membership benefits to our members
- * Becoming a stronger voice at the national level for our profession
- * Increasing development of leadership skills for those who wish to participate on committees and as board members at the state and national level

I encourage all technologists, educators, and students to become a part of their professional society not only as an employed RT, but as an advocate for Radiologic Sciences. Our profession is only as strong as we make it. Therefore, we must challenge ourselves to become involved in creating the changes we wish to see in our profession. We cannot do this without YOU! I welcome you to contact me with suggestions, concerns, or questions.

Students, check out the ASRT website. ASRT offers scholarships for entry-level students, professional advanced educational programs, publication resources, study tools, and career resources. If you are interested in enhancing your leadership skills, ASRT offers a student leadership development program. This year's ASRT meeting will be held in Orlando, FL coming up in June!

Through my career of 31 years, I have seen many changes and realize many more will be coming. We have a lobbyist working for us at the state level and we actively participate in RT in DC. As many of you know, change is inevitable but how we deal with change can make a difference. The only way to have effective change is to be educated on the details that make it all happen. This is where you can play an important role. Don't just ask, "What can MSRT do for me?" Instead ask, "What can I do to improve my profession?" Become educated on the details and help make our state shine! Joining MSRT has never been so simple; go to www.msrt.biz and click to become a member. I hope to see all of you at our next Conference, which will be held in Biloxi at the Hard Rock Hotel and Casino on October 21, 22, and 23, 2014.

Sincerely,
Shazowee Edgerton, MBA, RT (R) (M)
MSRT President



District Report



Twenty members were in attendance and, upon arrival, ballots were given for the election of officers.

The newly elected officers are:

- * Rita Fraser - President
- * Tammy Woolridge - Vice President
- * Kathy Stegall - Treasurer
- * Maegan Thorn - Secretary
- * Leigh Moser - Reporter

Another point of business included the discussion of taxes due before the next meeting. Rita will turn in the proper forms and submit our taxes after the first of the year. Also, Rita discussed having four meetings per year with the dates to be determined at a later time.

The meeting was adjourned.

Leigh Moser
North District Reporter

Technologist of the Year: Mark Gray

Thank you, MSRT, for honoring me with the Technologist of the Year Award at the 2013 Conference. This achievement was made possible by all the technologists, students, and volunteers associated with the MSRT. Special thanks to my co-workers (Mike, Kristi, Shaz, Asher, Sherry) for your dedication and daily support. I was honored to hang the award in my office next to my door to remind me each time I walk out of the importance of staying active and devoted to my chosen profession. I am very grateful to be a part of the radiologic sciences profession and the MSRT. Getting to know students and technologists through the MSRT has made a positive difference in my life. This award meant a lot to me and my family. I will always be grateful to the MSRT and the past Technologists of the Year for honoring me with this award.

Thanks again,

Mark Gray, M.S., R.T. (R)





R.T. in D.C.

March 17-18, 2014

Mark your calendar! The 2014 R.T. in D.C. advocacy event will be held March 17-18, and this year we intend to make a huge impact on Congress. We want every office in Washington, D.C., to know who radiologic technologists are and the important role you play in health care.

This year we'll host two distinct events to gain attention on Capitol Hill.

- We will host a live event in Washington, D.C., where participants will meet with their legislators in person.
 - * Attendees will meet with legislators and discuss the importance of the CARE bill and the MARCA bill March 18.
- We will conduct a virtual march on Capitol Hill for those who can't attend in person.
 - * Participate by contacting your representative and senators.
 - * Sign up for Thunderclap, a crowd-sharing application that will allow you to show your commitment to the passage of legislation, such as the CARE bill and MARCA.
 - * Follow us on Twitter @ASRT to get important information about R.T. in D.C. Use #RTinDC2014 to share your experience and invite your friends to join the virtual march.

The MSRT will be sending 3 RT's and our 2 student delegates to participate in R.T. in D.C. We need everyone else to participate in the virtual march on Capitol Hill. You can start contacting your legislators and their staff now. Let them know you support the CARE legislations, H.R. 1146 and S 642 and ask for their support. Tell them that 5 Radiologic Technologists will be meeting with them in D.C. on March 18th. At this time we only have Rep. Harper signed on to HR 1146 and Senator Wicker on S 642.

MARCA, H.R. 1148, is a bill for Radiologist Assistants that will allow them to be non-physician medical providers giving them the ability to bill for Medicare patients along with some other things. Currently, only Rep. Nunnelee is a co-sponsor.

Go to asrt.org and read up on the bills. They will be posting more information closer to March 18th. Check back to the msrt.biz website and we will try to have more info as it becomes available.

Thanks, in advance, for your help in getting these legislations passed. This is for the good of our profession and we need everyone to pull together as a team and get this done.

Diane Mayo, R.T.(R)(CT), FASRT
MSRT Legislative Co-Chair



Mississippi Society of Radiologic Technologists

Affiliated with the American Society of Radiologic Technologists

The **MSRT Business Meeting** for the 72nd Annual Conference was held at the Hard Rock Hotel and Casino in Biloxi, MS, on October 22, 2013. John Melvin, President of the MSRT, welcomed those present and thanked everyone for attending Conference.

A quorum was established and the meeting was called to order by President John Melvin at approximately 4:05 p.m.

The minutes from Conference 2012 were accepted as published in The BEAM.

The following reports were given:

1. **Treasurer:**

- A. Please refer to **Appendix A** for the MSRT Annual Financial Report that was presented at the business meeting.

2. **Vice-President:** Nothing to report.

3. **Secretary:** Nothing to report.

4. **Editor of The BEAM:**

- A. Please refer to **Appendix B** for the editor's report.
- B. The deadline for the next issue of The BEAM is tentatively set for November 15, 2013.

5. **Executive Secretary/Website Administrator:**

- A. As of October 21, 2013, there are a total of 375 MSRT members: (**see Appendix C**)
 - a) Active Members (RTs) – 156
 - b) Associate Members – 2
 - c) Honorary Members – 2
 - d) Life Members – 11
 - e) Students – 204
- B. MSRT membership/renewal is available online through www.msrt.biz.

- C. MSRT membership cards will no longer be mailed to members verifying membership. Instead, an automatic email will be sent to the member when they join/renew. This email serves as proof of MSRT membership.
- 6. ASRT Affiliate Delegates:**
- A. Sherrill Wilson and Kristi Moore represented the MSRT as ASRT Affiliate Delegates at the June 2013 ASRT House of Delegates meeting in in Albuquerque, New Mexico.
 - a) The ASRT Affiliate Delegate report can be found in the summer 2013 issue of The BEAM at www.msrt.biz.
- 7. President:** Nothing to report.
- 8. Conference Coordinator/Conference Chair:**
- A. There are currently 176 Conference attendees preregistered:
 - a) Active Members (RTs) – 45 (including Board members)
 - b) Student Members – 131
- 9. Legislative Committee:** Nothing to report.
- 10. Education Committee:**
- A. The Student Prep Bowl sponsored by the Central District will be held Wednesday night of Conference, beginning at 7:00 pm.
 - a) Four teams submitted a team roster prior to Conference. The last day to register teams will be on Wednesday.
 - b) The Prep Bowl will follow the same format as last year.
 - B. People's Choice:
 - a) The students were thanked for participating in the manuscript and exhibit competitions.
 - b) A total of 8 exhibits are on display. Conference attendees were reminded to vote for their favorite exhibit for the People's Choice award, which will be presented at the Presidential Awards Ceremony.
- 11. Student Liaison:**
- A. At the student meeting, the student delegates drew tickets to pay MSRT membership dues for 1 junior and 1 senior student, as well as ASRT membership dues for 1 junior and 1 senior student.
 - B. Approximately two months prior to MSRT Conference, nomination forms for student delegate were emailed to program directors for all radiography programs in Mississippi.
 - a) Program directors were asked to email the forms back to the student liaison by a specific date. A total of five (5) nomination forms were received by the due date.

- b) The nominated students addressed the student body at the student meeting prior to voting.
- c) The following MSRT student delegates for the upcoming year were elected by the student body at the student meeting:
 - 1) Jalyssa Steele – University of Mississippi Medical Center
 - 2) Johnathan Vu – University of Mississippi Medical Center

12. Rules and Bylaws Committee: Nothing to report.

13. Training Session:

A. Refer to **Appendix D** for the full report from the Training Session Coordinator.

- a) There have been 10 sessions this year, with a total of 281 attendees. This number is decreased compared to last year.
- b) The last session for 2013 is scheduled for November.

Old Business: None.

New Business:

1. **Nominations:** Nominations were as follows:

- A. President –Shazowee Edgerton
- B. Vice President – Robbie Nettles
- C. Secretary –Ramona Thomas
- D. ASRT Affiliate Delegate – Kristi Moore
 - a) A motion was made that those running unopposed be accepted by acclamation.

2. **Operating Budget:**

- A. Sherrill Wilson, chairman of the board, presented the proposed operating budget for 2013-2014 that was approved by the Board. (**see Appendix E**)

With no further business to be discussed, the meeting was adjourned at approximately 4:15 p.m.

Respectfully submitted by Kristi Moore, Ph.D., R.T. (R) (CT)

Editor's Report

October 21, 2013

1. Posted the summer 2013 issue of the BEAM online on July 16, 2013
2. Mailed a hardcopy to Ms. Arlene Fouché
3. Had Printables and More print and bind a hardcopy of the summer 2013 issue for the archive at a cost of \$27.00
4. Obtained a list of all Mississippi Radiologic Technologists and mailed postcards to each. The postcard informed them of the website, as well as member benefits.
 - The cost for printing 3,000 postcards was \$280.00
 - The cost for mailing postcards was \$1,351.01
 - The total cost for printing and mailing postcards was \$1,631.01

Total Expenses in this Editor's Report: \$1,658.01

5. The tentative deadline for the winter 2013 issue of The BEAM is November 15, 2013.
6. Plan to post the winter 2013 issue of The BEAM online by the end of December 2013
7. Will mail a hardcopy of the winter 2013 issue to Ms. Arlene Fouché
8. Will have Printables and More print and bind a hardcopy of the winter 2013 issue for the archive

**Executive Secretary/Website Administrator's Report
As of October 21, 2013**

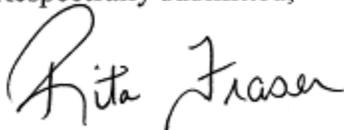
The following is a list of MSRT membership as of October 21, 2013:

- Active Members (RT's) – 156
 - Associate Members – 2
 - Honorary Members – 2
 - Life Members – 11
 - Student Members – 204
 - **Total Members – 375**
-

**REPORT FROM TRAINING SESSION COORDINATOR
BOARD MEMBERS
YEAR – TO – DATE
OCTOBER 22, 2013**

1)	Sessions	-	10	There is one scheduled in November.	
2)	Participants	-	281		
			281	x \$120.00	<u>\$33,720.00</u>
	2012				
	Participants	-	327		
			327	x \$120.00	<u>\$39,240.00</u>
3)	Expenses				
	A) Educators paid \$600.00 per session				
			10	x \$600.00 =	\$6,000.00
	Educators' expenses				\$
	Location Rental				\$1,659.99
	B) Coordinator paid for sites				\$1,905.00
	Paid for rescheduling				-0-
	Coordinators' expenses				\$ 1,095.41
				TOTAL EXPENSES	\$10,660.40
	AMOUNT of profit (Year-to-date)				<u>\$23,059.60</u>

Respectfully submitted,



Rita Fraser
Training Session Coordinator

MSRT Conference 2013 Speakers



Travis Prowant



Lori Prowant



Joey Jefferson



"Fuge" Fucillo



Kristi Moore



Mike Ketchum



Michael Theriot



Asher Street

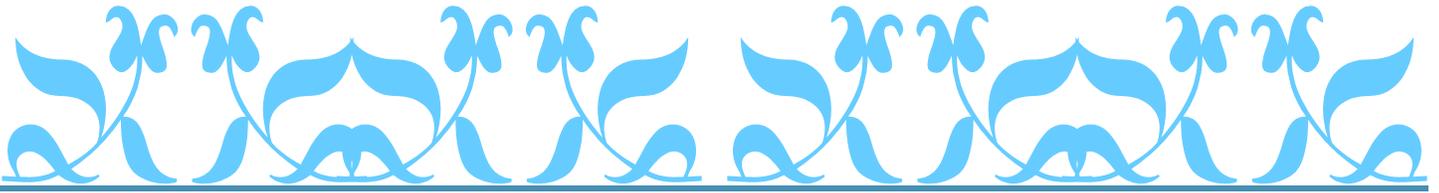


Jeff Crowley

Student Technologists of the Year Brittany Carruth & Shelby Harrell



Brittany Carruth is currently a senior Radiologic Technology student enrolled at Copiah Lincoln Community College and Shelby Harrell is currently a senior Radiologic Sciences student enrolled at the University of Mississippi Medical Center. During the past year, these students have worked extremely hard to earn this distinguished award. Both girls were selected to attend the ASRT Leadership Program in Albuquerque, NM. Shelby served as an MSRT Student Delegate. Both students attended District meetings, wrote papers to be published in the Beam, made presentations at the District meetings, and submitted a paper for the student manuscript competition for this year's conference. Pictured above (Brittany, left, and Shelby, right) are both recipients of this award in recognition of outstanding performance.



Student papers were mailed to three (3) out-of-state judges for the student manuscript competition. Pictured below are five of the six students whose papers were selected for manuscript competition.

- “Melorheostosis” by Ashley Young (UMMC)
Received 1st Place
- “Klippel-Feil Syndrome” by Madison Huse (UMMC)
Received 2nd Place
- “Situs Inversus” by Holly Branigin (UMMC)
Received 3rd Place
- “Multiple Sclerosis” by Adam Cummings (UMMC)
- “Lymphoma” by Jessica Hall (UMMC)
- “Hemophilia” by Brittany Gibson (UMMC) - *unable to present manuscript*



Pictured from left: Holly Branigin, Jessica Hall, Adam Cummings, Ashley Young, and Madison Huse

Student Manuscript: 1st Place Recipient—Ashley Young (UMMC)

“Melorheostosis”

Melorheostosis is a progressive disorder characterized by thickening of the bone, which in turn also affects the joints and overlying soft tissue and skin (Melorheostosis , 2001). It was first described by Leri and Joanny in 1992 as a result of studying an affected arm. In their description, they referred to this disorder as “hyperostose en coutee” meaning flowing hyperostosis, resembling dripping candle wax, also known more commonly today as Melorheostosis or Leri’s disease (Azouz & Greenspan, 2005). The term Melorheostosis is derived from the Greek: *melos* meaning limb, *rheos* meaning flow, and *osteon* meaning bone (Jain, Arya, Bharadwaj, & Kumar, 2009).

Melorheostosis is a rare, non-hereditary, benign disorder that is of very poorly understood etiology. It is described as a mixed sclerosing dysplasia with disturbance of both endochondral and intramembranous ossification, in which intramembranous ossification is more dominant. Melorheostosis is characterized by soft tissue contractures with overlying slowly-evolving hyperostosis or abnormal development of bony tissues (Jain, Arya, Bharadwaj, & Kumar, 2009). Melorheostosis has an incidence of about 0.9 cases per million, and it does not discriminate in gender as it affects men and women equally. The disorder can also occur with any age group, ranging from children to adults of all ages. The dysplasia usually occurs in early childhood, and in 40-50% of reported cases is perceptible by age twenty (Jain, Arya, Bharadwaj, & Kumar, 2009). Even though Melorheostosis is a benign condition, the osseous changes taking place can cause morbidity and, along with the skin and tissue involvement, can result in fibrosis and joint contractures ultimately leading to deformities and limb-length differences (Suresh, Muthukumar, & Saifuddin, 2010).

Melorheostosis is more commonly found among the appendicular skeleton rather than the axial skeleton; however, it has occurred in the axial skeleton in very few and rare documented case reports. With the appendicular skeleton being more predominant in the location of this condition, it is also stated that the lower extremity is more frequently involved than the upper extremity. The long tubular bones of the extremities usually are the most commonly affected, although the disease may also involve other bones, such

as, any of the short bones of the hand or foot (Suresh, Muthukumar, & Saifuddin, 2010). The involvement of Melorheostosis can encompass one bone (monostotic), more than one bone (polyostotic), or one extremity (monomelic) (Jain, Arya, Bharadwaj, & Kumar, 2009). Since this condition was first described in 1992, roughly 400 cases have since been reported. The earliest case was found in a 25-30 year old female prehistoric skeleton, dating between 4000-5500 BC from an archeology site in Northern Chile (Suresh, Muthukumar, & Saifuddin, 2010).

The etiology and pathogenesis of this disorder to this day still remains unclear. Within the first five years of the first description of Melorheostosis by Leri and Joanny, various theories have since been proposed (Suresh, Muthukumar, & Saifuddin, 2010). There are currently two major correlated hypotheses in existence. First is the classic theory of Murray and McCredie composed in 1979. They made the correlation of Melorheostosis with sclerotomes, which are areas of bone stimulated by an individual spinal sensory nerve. Sclerotomes reflect the segmental pattern of early embryonic development, with cartilage-forming cells migrating from the sclerotome to the limb buds. They proposed that Melorheostosis might be the result of a segmental sensory lesion due to specific infection or injury to a segment or segments of the neural crest during embryogenesis. This would explain the peculiar monomelic involvement of Melorheostosis. However, the second theory involving Melorheostosis was proposed by Fryns in 1995, stating the concept of mosaicism as a possible explanation for the sporadic occurrences of this bone dysplasia. The concept of mosaicism can be described as a condition in which an organism is composed of two or more genetically distinct tissues resulting in a post-zygotic mutation which, in turn, will cause the faulty distribution of genetic materials during mitosis. According to Fryns, this faulty distribution of genetic materials is what will cause the asymmetric involvement of the skeletal muscle structures, in addition to the changes in the overlying soft tissues. This theory encompasses an explanation of the monomelic involvement, but also incorporates the equal gender ratio of this disease (Suresh, Muthukumar, & Saifuddin, 2010). Even though both of these hypotheses have been discussed, they are still being researched and neither has been proven to be the exact cause of Melorheostosis. More recently, there has also been another added observation in the development of

Melorheostosis. This observation has to do with the LEMD3 gene and the loss of genetic mutations within this specific gene. Despite the evidence that the insufficiency for the LEMD3 gene can act as a stimulating factor for the development of Melorheostosis, the precise role of LEMD3 gene in the pathogenesis of isolated and sporadic Melorheostosis is not yet understood (Melorheostosis , 2001).

The characteristic radiographic appearance of Melorheostosis is described as flowing hyperostosis along one side of the shaft of the long bone, which resembles “melting wax flowing down the side of the bone” (Suresh, Muthukumar, & Saifuddin, 2010). This melting wax appearance is due to an irregular thickening of bone that can extend up to the articular surface. Along with the diagnosis of Melorheostosis by radiographic appearance, in some cases it has also been associated with sclerodermic skin changes or hardening of the skin that overlies the affected areas of bone (Bansal, 2008). Although other imaging techniques are not usually needed for the diagnosis of Melorheostosis, computed tomography, magnetic resonance imaging, and radionuclide bone scanning may be more helpful when evaluating the asymmetric aspect of the condition. Using more than one imaging aspect would be helpful in some cases because the classical presentation of Melorheostosis may not be seen in every affected patient. There are several different patterns of Melorheostosis that may be detected when imaged. These can include osteoma-like appearance, osteopathia striata-like pattern, or myositis ossificans-like appearance. Osteoma-like appearance, which is the most common, is seen as hyperostosis located either on the outer or inner aspect of the affected bone. Osteopathia striata-like pattern is long dense hyperostotic striations near the inner side of the cortex in two or more bones. Myositis ossificans-like ossifications are in the soft tissues and are more nodular in arrangement (Suresh, Muthukumar, & Saifuddin, 2010).

Melorheostosis can be progressive with periodic heightening of severity (Melorheostosis , 2001). In past studies of Melorheostosis in children, it was reported that there is a difference in the severity and appearance of the disease when comparing children and adults. In contrast to the disease in adults, pain occurred more infrequently and was never intense in children. Also, it was reported that the distinctive radiographic feature in the child was an endosteal pattern of hyperostosis, compared to the usual

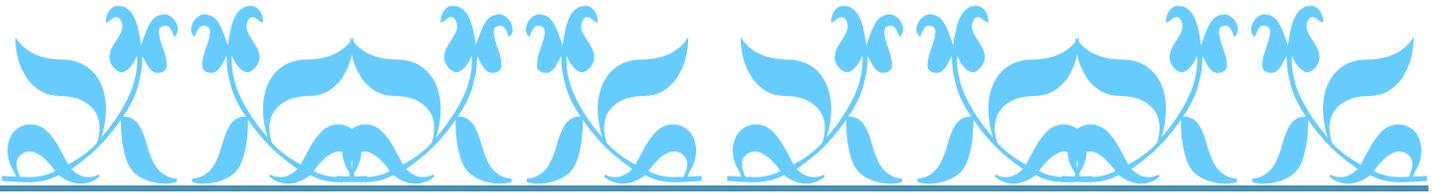
subperiosteal or extracortical pattern of hyperostosis seen in adults (Younge, Drummond, Herring, & Cruess, 1979).

There is currently no cure for Melorheostosis, although surgery is a possible option to correct deformities and asymmetrical bone growth. However, surgery is usually not recommended unless it is for a severe case, due to the fact that bone healing in Melorheostosis patients can be very uncertain (Melorheostosis , 2001). For example, a 43-year-old woman could not wear shoes for one year due to chronic pain in her left foot. Upon examination, an irregular bony mass could be palpated and an erythematous change and the forming of a callus could also be seen around the contact area of the skin and shoe. Her doctor ordered a radiograph of her foot for further explanation for this bony mass and callus formation. After seeing the results of the radiograph, a diagnosis of Melorheostosis was made due to the typical visible signs, such as the “dripping candle wax sign.” More specifically for this case, there was a differential diagnosis of myositis ossificans-type pattern. Conventional treatment was experimented with initially, but was not effective. The patient could not tolerate the pain and friction to be able to wear shoes. More times than not, pain management in Melorheostosis patients is usually a challenge due to the chronic and progressive changes in the severity of this disease. In this specific case because the pain was so severe, the best option for her was to have a debulking osteotomy, in which the irregular tumor, due to the bulging of the thickened bone, was resected. Pathology showed abnormal growth of thickened bone distorting the normal smooth contour of the periosteal surface of the bone. After the surgery, the patient felt that the pressure on her foot had been relieved, and the tumor mass and callosity had yet to show signs of reoccurrence following her one-and-a-half years of follow-up (Chou, Chen, Chen, Chien, & Cheng, Surgical Treatment of Melorheostosis, 2012).

In conclusion, Melorheostosis is a benign dysplasia that can cause significant morbidity (Melorheostosis , 2001). As radiologic technologists, awareness of the varying clinical and radiological presentations of this disease can significantly contribute to helping and managing Melorheostosis patients. Scientists are currently doing research to further their knowledge of the causes of Melorheostosis in hopes of removing it from the growing list of medical mysteries.

References

- Azouz, M. E., & Greenspan, A. (2005, February). Melorheostosis. Retrieved February 8, 2013, from Melorheostosis: <https://www.orpha.net/data/patho/GB/uk-Melorheostosis.pdf>
- Bansal, A. (2008). The Dripping Candle Wax Sign. *Radiology* , 246 (2), 638-649.
- Chou, S.-H., Chen, C.-H., Chen, J.-C., Chien, S.-H., & Cheng, Y.-M. (2012). Surgical Treatment of Melorheostosis: Report of Two Cases. *The Kaohsiung Journal of Medical Sciences* , 28 (5), 285-288.
- Jain, V. K., Arya, K. R., Bharadwaj, M., & Kumar, S. (2009). Melorheostosis: Clinicopathological Features, Diagnosis, and Management. 32 (7), 512-518.
- Melorheostosis* . (2001). Retrieved February 8, 2013, from Melorheostosis Assosiation: <http://www.melorheostosis.com/default.htm>
- Suresh, S., Muthukumar, T., & Saifuddin, A. (2010). Classical and Unusual Imaging Appearances of Melorheostosis. *Clinical Radiology* , 65 (8), 593-600.
- Younge, D., Drummond, D., Herring, J., & Cruess, R. L. (1979). Melorheostosis in Children. *The Journal of Bone and Joint Surgery* , 61-B (4), 415-418.



Radiologic technologists have the opportunity to participate in the RT category of both the scientific manuscript and exhibit competitions at the MSRT Conference each year. This year, radiologic technologist, Brooke Bridges, submitted a scientific manuscript titled “Hydronephrosis: A Case Study” for the RT manuscript competition. Her manuscript was sent to three out-of-state judges for preliminary judging. Brooke presented her manuscript at Conference for final judging. Brooke’s manuscript received 1st place in the Radiologic Technologist category of the scientific manuscript competition at the 72nd Annual MSRT Conference.



Pictured above: Brooke Bridges, R.T. (R) - Recipient of first place for her manuscript titled, “Hydronephrosis: A Case Study”

Technologist Manuscript: 1st Place Recipient—Brooke Bridges, R.T. (R) “Hydronephrosis: A Case Study”

When Jackson was five years old, he was diagnosed with severe hydronephrosis of the left kidney. Hydronephrosis is a condition in which stretching or swelling of the renal pelvis occurs, most often as the result of an obstruction to urinary outflow. It can be caused by neurogenic bladder dysfunction, pregnancy, urogenital cancer, urinary tract inflammation, congenital malformations, ureteral strictures, and even parasites called schistosomiasis (Hydronephrosis). In Jackson's case, the cause was stenosis of the ureteropelvic junction, which happens to be one of the most common congenital urological abnormalities (Kato). It means that the point at which his ureter meets the pelvis of his kidney was constricted severely enough to prevent the kidney from draining the urine it produced.

When Jackson was en utero, the routine ultrasound found his left kidney to be enlarged. Additional ultrasounds were taken every two weeks for the second half of the pregnancy to monitor its size. The doctor offered the option of amniocentesis for fetal urine sampling and chromosomal analysis, but his family declined that procedure due to the substantial risks to the fetus. Jackson's case was statistically typical in that it is more common in males and also more prevalent in the left kidney (Karnak). The doctor explained that Jackson's condition was likely to resolve itself on its own post-natally, and an ultrasound performed within the first two days after his birth appeared to confirm this assessment. From that point on, the extra ultrasounds surrounding Jackson's prenatal development and birth became an incident that was believed to be resolved and would have no further bearing on his health. His family later discovered that the timing of postnatal ultrasounds has been known to give false negatives due to dehydration and low glomerular filtration rates characteristic in infants immediately after birth (Yiee).

The fact that Jackson's congenital condition was ongoing was discovered almost by accident over five years later. It was assumed that he had a stomach virus that had been

circulating through his school because his symptoms matched those that reportedly accompanied the school bug. He had a low grade fever, he was complaining of nausea, and he was vomiting occasionally. His family decided to take him to the emergency room because it happened to be a Friday evening, they didn't want him to have to wait through the weekend before getting a prescription, and they were worried about dehydration due to the vomiting.

Once in the ER, he was put on a saline IV, and the doctor ordered an acute abdomen series. Though hydronephrosis is considered to be an additive disease due to the inflamed tissue and trapped urine, it is rarely visualized on normal x-rays. Such was the case when Jackson's x-rays did not show any pathology. Meanwhile, Jackson was becoming lethargic and groggy in his ER room. Due to his worsening condition, the doctor ordered an abdomen-pelvis CT scan with contrast. The final report from this CT scan included the following, "The left kidney demonstrates severe hydronephrotic change with differential perfusion of the kidney noted. The left renal pelvis is dilated measuring approximately 8.5 cm x 5.5 cm in size. No ureteral dilatation is evident. No renal stones are noted" (Purvis). This revelation caused his family to rethink recurring instances in the past, when they assumed that Jackson was simply prone to catching "stomach bugs." He was actually suffering from intermittent, acute flare-ups from this hydronephrotic kidney.

The radiologist also reported that despite an additional scan, the appendix could not be identified to rule out appendicitis or an appendiceal abscess. This concern sent him on an hour-long ambulance ride to a larger hospital for a possible emergency appendectomy. Meanwhile, Jackson's condition had progressed to a stupor that he could not be easily aroused from.

Jackson was immediately put under the care of a pediatric urologist. It was determined that the appendectomy was unnecessary, but he would require surgery to correct the stenosis that was causing his left kidney to swell. He spent the night in the hospital for further observation and set up additional testing to be completed at a later date, in order to prepare for surgery.

A few weeks later, Jackson was scheduled for a nuclear medicine study to determine functionality of the enlarged kidney. The test indicated that the kidney was still largely functional, but his urologist explained that it would gradually deteriorate, and it was likely that Jackson would eventually lose the kidney if it was not surgically corrected. Studies into cases with his pathology suggest that between 7% and 25% of patients will need surgery (Yiee).

Three months later, Jackson underwent a pyeloplasty using the most common surgical technique, known as the Anderson-Hynes technique, to correct the congenital stenosis. In this method, the constricted segment of the ureteropelvic junction is removed and the edges that remain are sewn back together (Yiee). In Jackson's case, the surgeon explained that he also had to shave a significant portion of the enlarged pelvis of the kidney before the reattachment.

Jackson stayed in the hospital for recovery and observation for four days. During this time he also had an ultrasound of the kidney, which presented routinely for its post-surgery state. Jackson visited the hospital twice more: once to remove a drain about ten days after surgery and again after six weeks to remove a stent that had been placed during the surgery to uphold the integrity of the ureter during the healing process.

Throughout the treatment of his condition, Jackson underwent several radiologic procedures, including routine x-ray, CT, nuclear medicine, and ultrasound. Additional procedures that are commonly used to diagnose or monitor this pathology include MRI, voiding cystourethrograms, retrograde pyelography, and intravenous urography. For most procedures that can visualize hydronephrosis, the radiographic hallmark is the presence of a large "water-density" mass in the region of the kidney which does not visualize further, indicating that some studies show the cystic nature of the condition better than others (Uson). In MRI and intravenous pyelographic studies, the pathology is deemed a "massive hydronephrosis" in children when the kidney occupies at least half of the abdomen, crossing the vertebral column, and reaching at least

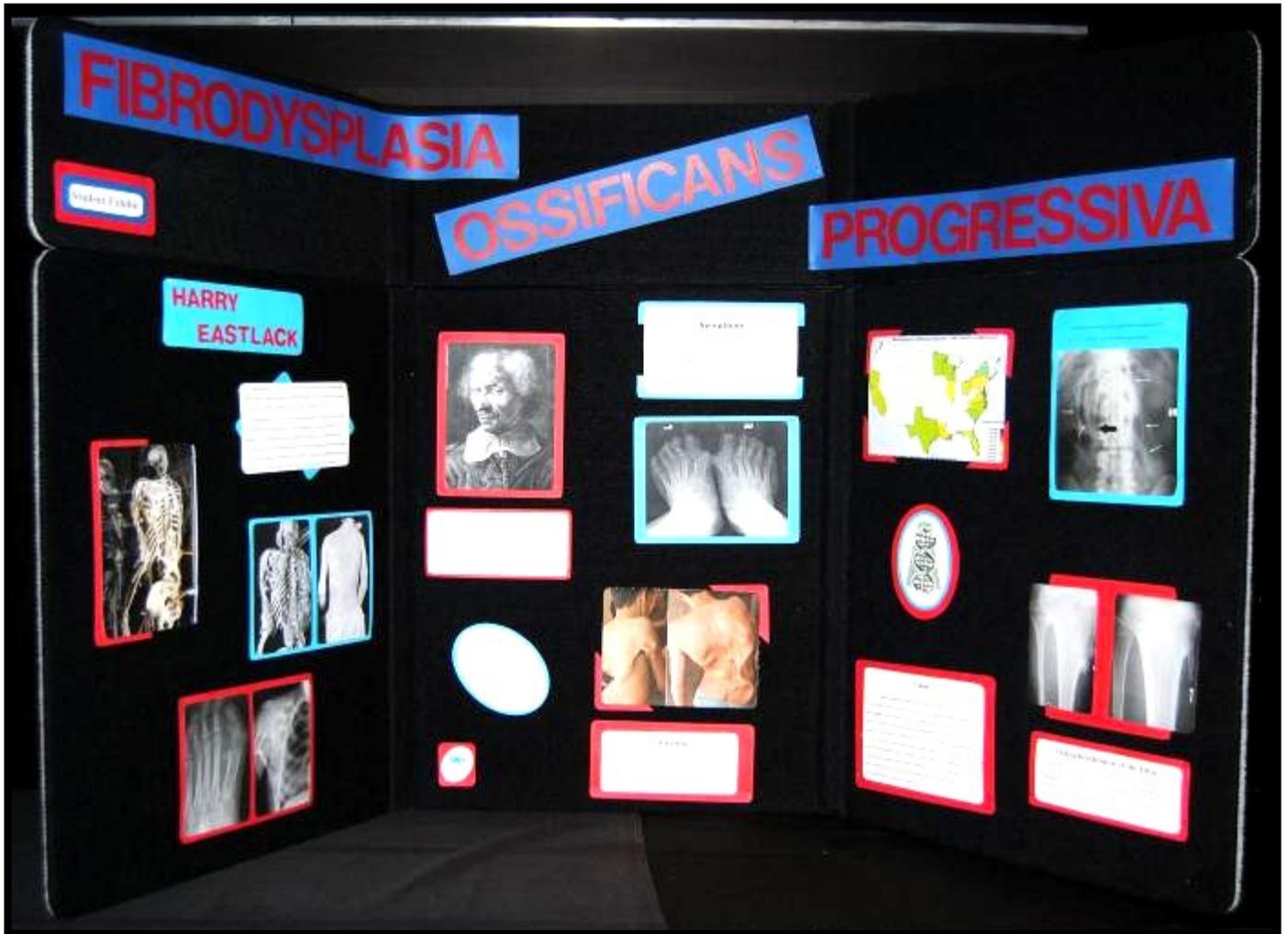
five vertebrae in length (Kato). Though Jackson never went through either of these procedures, in his CT scans it appears that he might have met these conditions.

Today, Jackson lives a completely normal life, and there have been no more "flare-ups" like those that kept him frequently in and out of school. A little over a year after his surgery, Jackson went to a follow-up appointment that included a nuclear medicine renal scan and a renal ultrasound. Both tests concluded that the size and functionality of his kidney have returned to normal ranges, and his specialist confirmed that it is almost impossible to tell that his kidney had ever been impaired - except for when he proudly shows off his scar.

Works Cited

- "Hydronephrosis." *Taber's Cyclopedic Medical Dictionary*. Philadelphia: F.A. Davis Company, 2009. *Credo Reference*. Web. 12 March 2013.
- Karnak, Ibrahim. "Results Of A Practical Protocol For Management Of Prenatally Detected Hydro-nephrosis Due To Ureteropelvic Junction Obstruction." vol. 25, no. 1 (Jan 2009), p. 61-67.(n.d.): Web. 12 Mar. 2013.
- Kato, Yoshifumi. "Surgical Treatment And Outcome Of Mega-Hydronephrosis Due To Pelviureteric Junction Stenosis." vol. 22, no. 11 (Nov 2006), p. 911-913.(n.d.): Web. 12 Mar. 2013.
- Purvis, Jani L. CT Abdomen/Pelvis W/Contrast. 07 Oct 2011. Final Report. Signed 08 Oct 2011. Transcribed by Deborah H. Case, 08 Oct 2011.
- Uson, Aurelio C., Selwyn B. Levitt, and John K. Lattimer. "Giant Hydronephrosis In Children." *Pediatrics* 44.2 (1969): 209. *Academic Search Premier*. Web. 12 Mar. 2013.
- Yiee, Jenny. "Management Of Fetal Hydronephrosis." vol. 23, no. 3 (Mar 2008), p. 347- 353.(n.d.): Web. 12 Mar. 2013

Student Exhibits



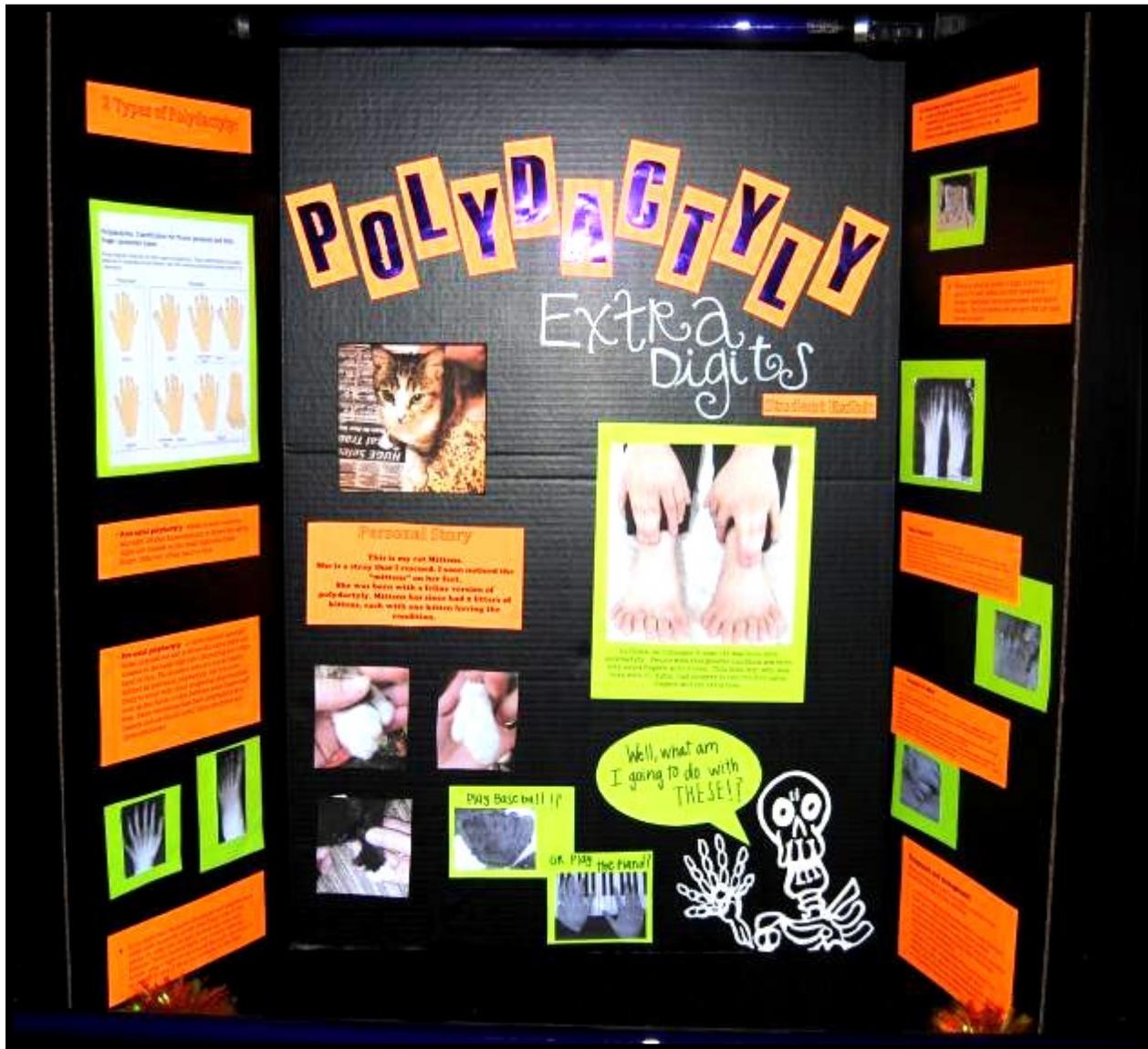
1st Place

“Fibrodysplasia Ossificans Progressiva ”

Students: Hillary Hobby and Noelle Granger

(UMMC)

Student Exhibits



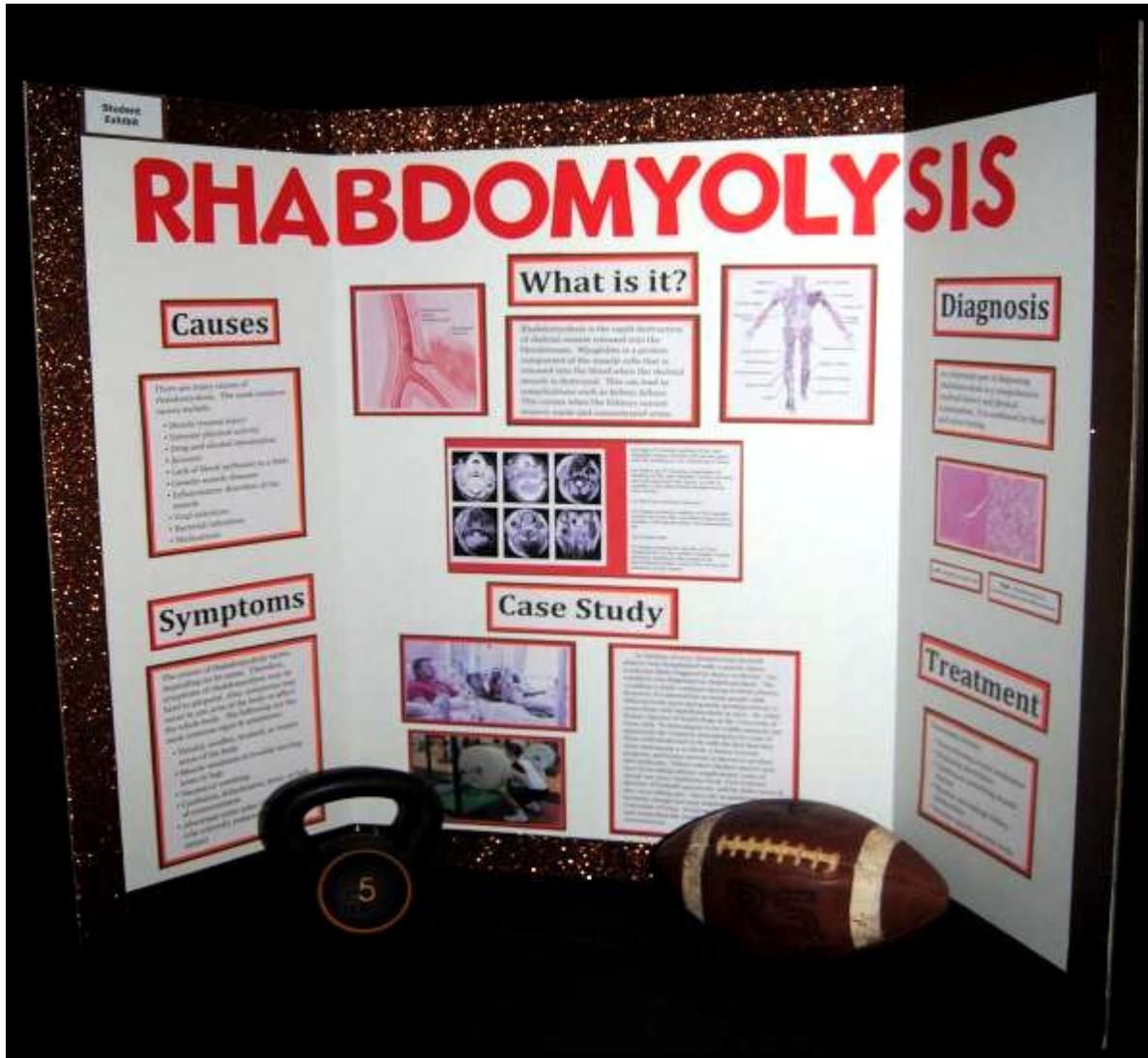
2nd Place & People's Choice Award

"Polydactyly"

Student: Kaitlyn Caston

(UMMC)

Student Exhibits



3rd Place

“Rhabdomyolysis”

Students: Amy Scheider and Jalyssa Steele
(UMMC)

Student Exhibits

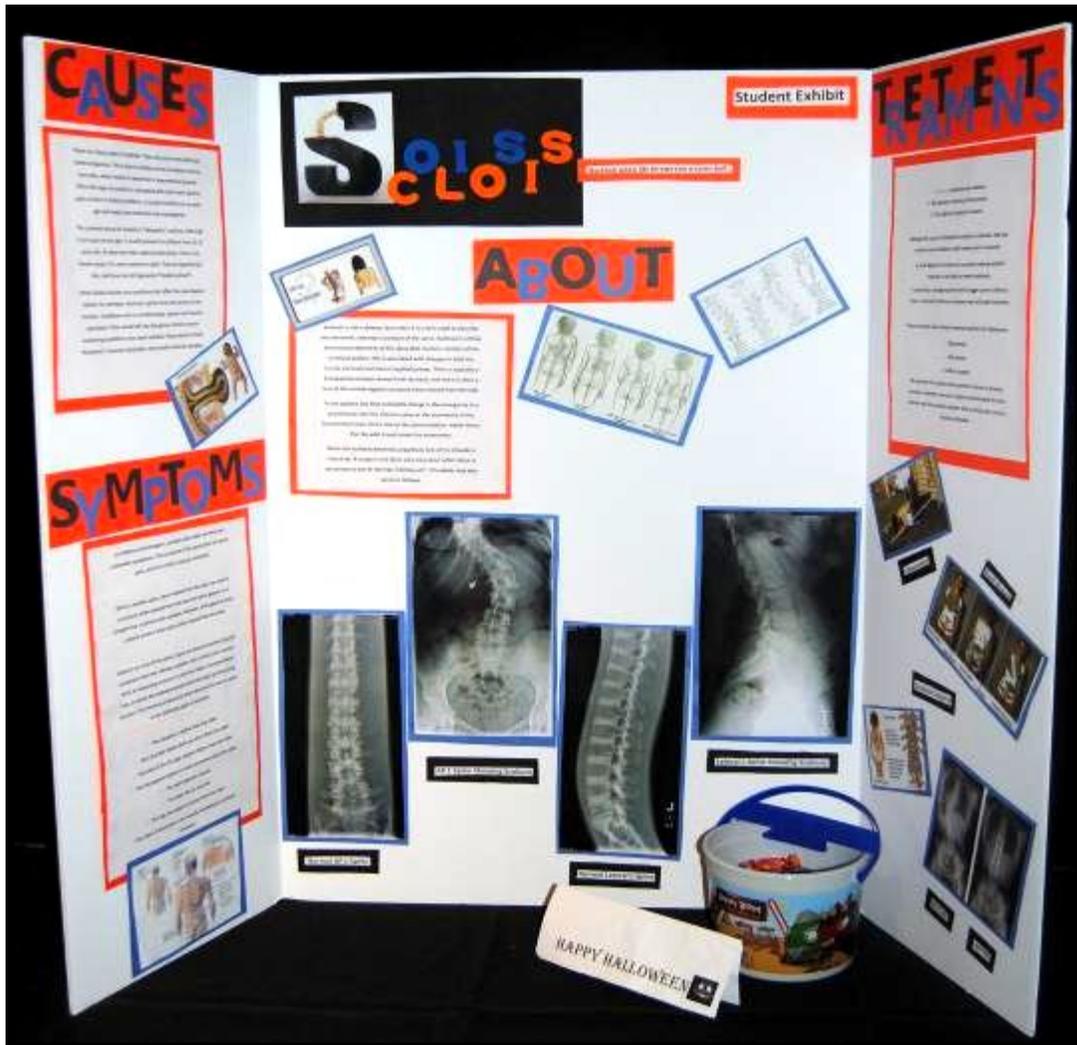


“Fractal Geometry in Radiology”

Student: Jessica Reid

(Itawamba Community College)

Student Exhibits



“Scoliosis”

Students: Ryan Russell and Ashley Norwood
(UMMC)

Student Exhibits

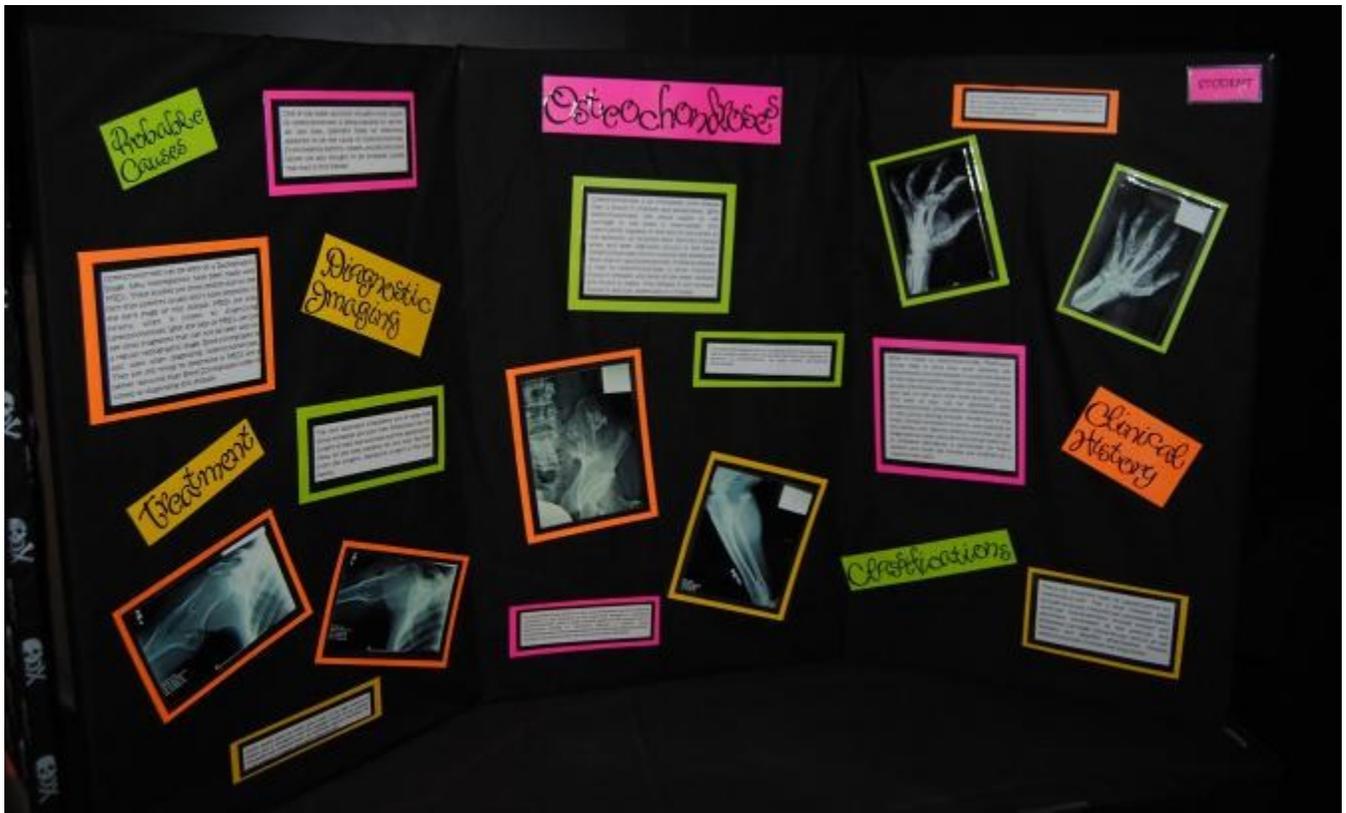


“Blue-Baby Syndrome”

Student: Jarvis Jackson

(UMMC)

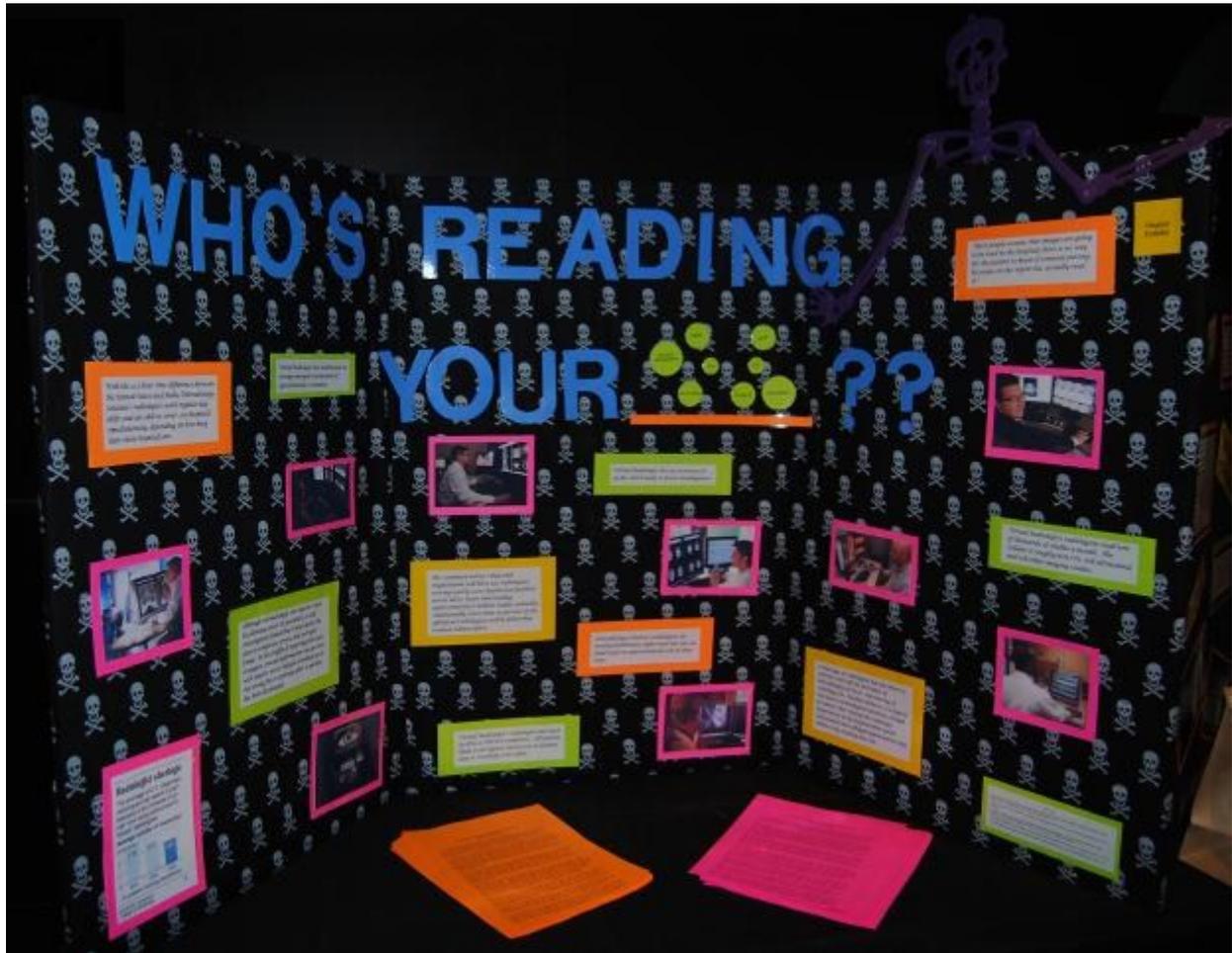
Student Exhibits



“Osteochondroses”

Students: Jeana Parrett, Kristen Berry, Chelsea Smith,
Clair Myers, and Ashley Foster
(Co-Lin Community College)

Student Exhibits



“Who’s Reading Your _____?”

Students: Leah White, Christina Jamison,
Abby Stalans, and Emily Jackson
(Co-Lin Community College)

Student Prep Bowl Competition



1st Place - University of Mississippi Medical Center

Front Row (L to R): Shelby Harrell, Noelle Granger, and Ashley Young

Back Row (L to R): Javis Jackson and Mary Brooke Lott

Student Prep Bowl Competition



2nd Place - Mississippi Delta Community College

Front Row (L to R): Ashlyn Haughton, Alex Bell, and Jordan Dodson

Back Row (L to R): Christle Milton and Scotty Reynolds

Student Prep Bowl Competition



3rd Place - Mississippi Delta Community College

Front Row (L to R): Kandae Perkins, Jessica Reid, and Wendy Johnson

Back Row: Marty Kelly

Student Prep Bowl Competition

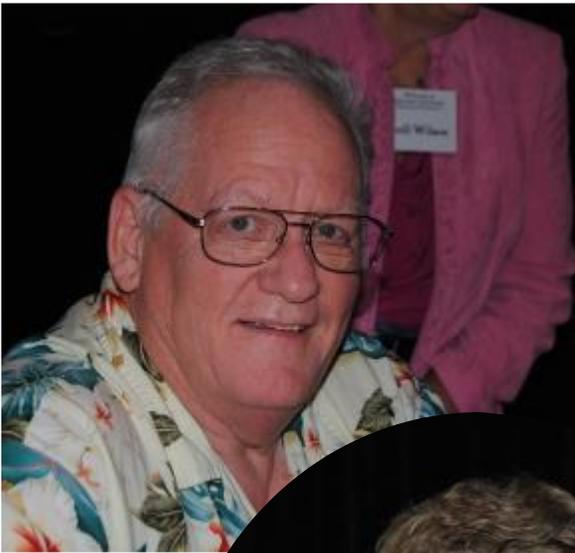


Prep Bowl Participants - Copenh-Lincoln Community College

Front Row (L to R): Chelsea Smith, Emily Jackson, and Kristin Berry

Back Row (L to R): Jeana Parrett and Christina Jamison

Student Prep Bowl Support



Student Meeting



Student Meeting



Student Meeting



Student Meeting



Student Meeting



Student Meeting



Student Meeting



Student Meeting



Presidential Awards Ceremony



(Above) Congratulations to all of the student manuscript presenters!



MSRT President John Melvin presents plaques to 1st place student manuscript recipient, Ashley Young (above), and 1st place RT manuscript recipient, Brooke Bridges (right).



Presidential Awards Ceremony

Great job to all of the students who participated in the exhibit competition!



Presidential Awards Ceremony



(Left) Hillary Hobby & Noelle Granger—1st Place in Student Exhibits



(Above) Jalyssa Steele & Amy Scheider—3rd Place in Student Exhibits



(Left) Jalyssa Steele & Johnathan Vu—MSRT Student Delegates

Presidential Awards Ceremony

Former MSRT Technologist of the Year award recipients pictured with Mark Gray (centered), recipient of the 2013 Technologist of the Year award



(L to R): Kristi Moore, Paula Young, Diane Mayo, Sandy Cochran, Mark Gray, Chuck Busby, Sherrill Wilson, Mike Ketchum, and Rita Fraser



(Left) Mark Gray—2013
(Right) Rita Fraser—2012



Presidential Awards Ceremony

Sherrill Wilson, Chairman of the MSRT Board of Directors, presented the past president's plaque to John Melvin, outgoing MSRT President.



Sherrill Wilson is seen below presenting the president's gavel to incoming MSRT President, Shazowee Edgerton.



Pictured left are Ramona Thomas, MSRT Secretary, Shazowee Edgerton, MSRT President, and Robbie Nettles, MSRT Vice President for the upcoming year. Congratulations and Best Wishes!





Costume Party!







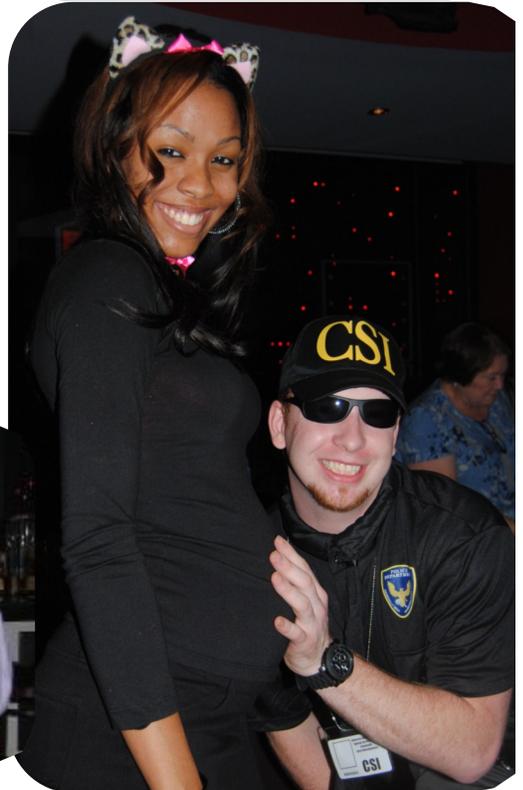






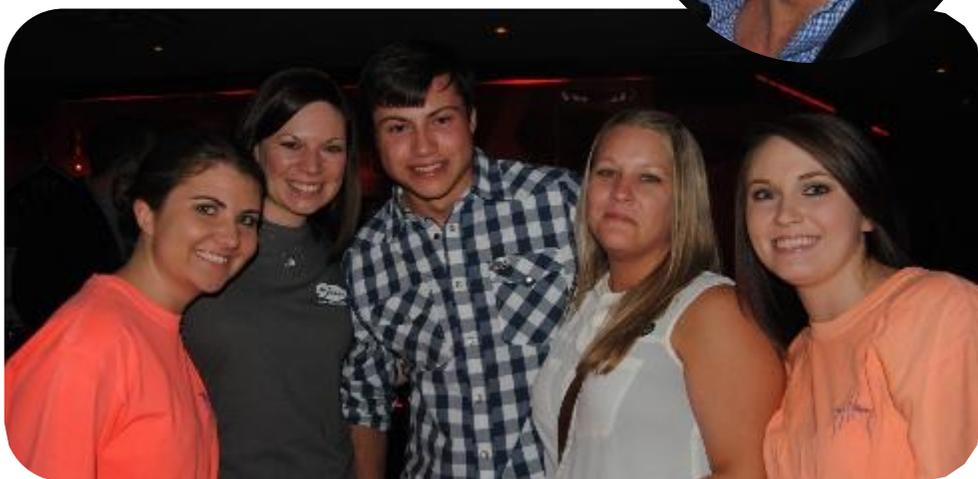








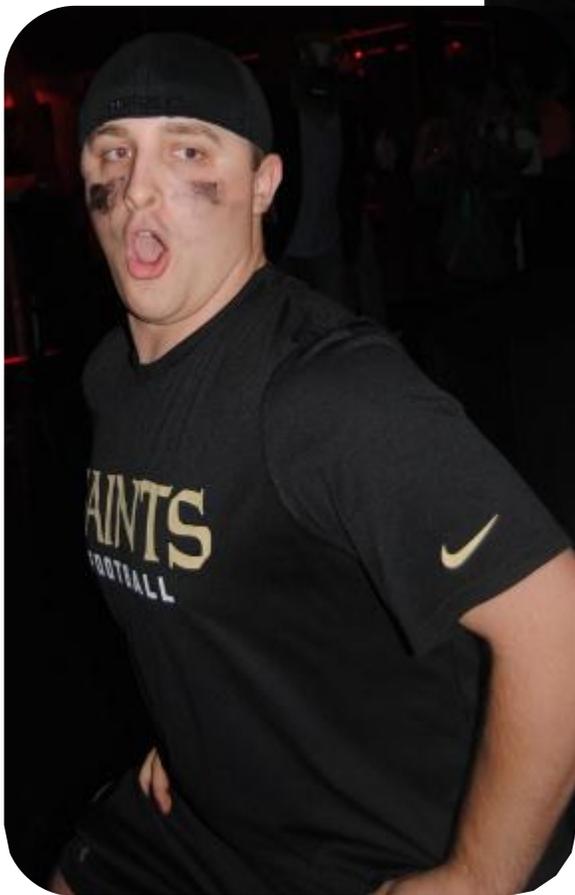
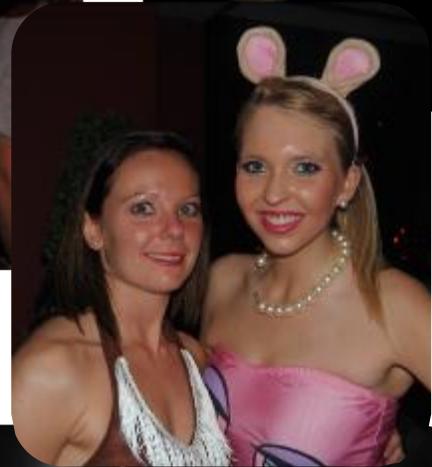




















Costume Contest Winners!



Letter from the Editor

Conference 2013 in Biloxi, MS, was awesome! There were a lot of people who worked extremely hard to make this a successful event. The speakers all did a great job and it was great seeing all of our out-of-state friends! I am very proud that we had so many former Technologist of the Year award recipients in attendance...it is encouraging to see the support they have shown the MSRT all these years. Congratulations to all of the students who received awards! Please continue to share your knowledge with others. I look forward to seeing each and every one of you at Conference 2014 back in Biloxi!!!

~Kristi Moore, Ph.D., R.T. (R)(CT)

