'Skull-diggery' at Manot Cave continues to yield insights on craniofacial development, human evolution

This year, Case Western Reserve University dental students and researchers will travel to Israel to make a house call on their oldest patients yet— ancestors who lived between 300,000 and 20,000 BP (before present). They were particularly interested in the skull, considered one of the most complete fossils of an early human skull. The cave, in Manot, Israel, in the western Galilee area, was opened in 2008 after being sealed for 20,000 years. The dig has been going on for more than a year.



Ale a de A le is from Voorhees, New Jersey. He attended the University of Pennsylvania School of Dental Medicine. "Orthodontics appeals to my enthusiasm towards solving puzzles," he says. "I enjoy of evaluating radiographs and implementing creative treatment plans. The CWRU atmosphere felt like a family, and the city of Cleveland was very welcoming. After my training, I hope to practice in a group setting and teach at a dental school. My hobbies include playing soccer and tennis, and I am a passionate Duke basketball fan. I am new to Cleveland, and I am excited to discover everything the city has to offer."

Ad ia J Fa i a is currently working at the Montreal Children's hospital, and can't wait to start his program here. He says he "really became interested in orthodontics just prior to starting University, when I spent my free time shadowing different orthodontists in their private practices." He attended dental school at McGill University in Montreal. Adriano chose CWR



C e J _ , who is from Fairway, Kansas, became interested in orthodontics because his father is an orthodontist. "While I was growing up, my father explained his cases to me, similar to the way in which a father and son spend time working on cars or building a tree house." Corey attended the University of Iowa dental school. He chose the CWRU School of Dental Medicine for his residency because "I liked the [program's] strong background in surgery/hospital cases. In addition, the faculty who were present at the interview were



LETTER FROM THE CHAIRMAN



Mark Hans, D.D.S., M.S.D. '79, '81

Greetings from Cleveland. I regret that I was unable to attend the annual session this year but plan to see you all next year in Philadelphia. Our program director, Marty Palomo, and his lovely wife Leena, hosted the alumni reception and reported on the progress we have made in the department over the last year.

The reason I was not at the AAO for the first time since 1987 is that I was invited by one of our alumnae, Thierry DeCoster, to speak at the EuroMed meeting in Monte Carlo and I could not arrange my travel plans to accommodate both meetings. Rest assured in my belief that alumni are the lifeblood of a successful orthodontic department.

I know that you work hard for your dollars and I want to be a responsible steward of your money. Alumni endowment funds generate about 100K per year and all of that goes to support the orthodontic training program. For example, last year we sent the second-year class to Beijing, China, to meet with students at Peking University School of Stomatology. The students presented their research result and met with their Chinese counterparts for seminars on diagnosis and treatment planning. As a side benefit, they were also able to visit the Great Wall, Tiananmen Square, the Forbidden City, and most of the Olympic venues. Be sure to ask them about this once-in-a-lifetime experience when you see them next year in Philadelphia.

In addition to the China trip, alumni funds supported the purchase of new high-end computers for manipulating CBCT images and research, helped finance the new 1,500-square-foot Broadbent Institute for Craniofacial Care and Research, and supported resident travel to the Moyer's Symposium and the AAO meeting. (For more on this, please see the column by Dr. Valiathan, Fellowship Director, in this newsletter.)

Because endowment is the only unrestricted support we get, the money often finances new initiatives that broaden the scope of our department's activities. Such is the case with the hiring of Dr. Bruce Latimer, a noted paleoanthropologist to lead the exploration of Manot Cave in Israel. A world-renowned physical anthropologist, Dr. Latimer will provide instruction in Evolutionary Biology, as well as in Head and Neck Anatomy. You might recall his work in Ethiopia where he was one of the scientists that discovered Ardi and was a graduate student on the team that discovered Lucy. The department will be featured in an upcoming segment for *National Geographic* that highlights Dr. Latimer's work in human evolution.

You can see that your alumni dollars are working just as hard as you do. We continue to build an orthodontic department you can be proud to be part of. Please feel free to drop me an email if you have questions or comments on this column or any of the newsletter content. Thanks!!!!

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Incoming Residents... continued

choice. The details all came together, and became a recipe whereby I chose to pursue orthodontics. It wasn't clear while I was growing up, but the signs kept pointing to the same direction as my clinical experience grew, and I just love it. Simple as that!" Sorapan chose CWRU because of "its prestigious name. The school's publications and archives are known all the way over in Thailand. But my commitment to this school was because my interview with the staff, and teachers and residents. It's the best environment for me and I feel I can do my best here with their friendly attitude and eagerness to help me succeed. In my practice, I want to be a teacher at an orthodontics department somewhere, preferably in Thailand. I will also want a practice of my own. I live in a country that centers everything in Bangkok and you drive 50 miles south or east and it's a different country. Dental health care alone is a mishap. I would like to work in these areas, maybe once a week to get them familiar with orthodontics. It's a tiny part to play but at least it's something that I can give back."



Dr. Sabat's teaching emphasizes performance, accountability, excellence

Michael Sabat, D.D.S., M.S. '66, '68, Clinical Professor, has been a faculty member in the Department of Orthodontics for more than 40 years, possibly longer than any other faculty member. If you ask him about his teaching philosophy, he will tell you that students must learn the what, why and how to do orthodontics, and then have the passion to do it well. This includes instruction on:



Michael Sabat, D.D.S., M.S. '66, '68

- Clinical procedures, such as how to do impressions, wires, or braces, and
- Theory and rationale, such as how and where to move teeth; and the biological basis of orthodontic treatment.

"I try to get residents to understand the big picture,"

says Dr. Sabat. "I often find that students are anxious to 'd orthodontics'; they want to get to the tasks and the skills. However, being an orthodontist is so much more than being a mechanic. It is not just a 9 to 5 job, but also a life-long commitment to pursue. Of course, we want the patient to have straight teeth, but it's important for the students to understand why things are done a certain way.

"I continually emphasize that we need to 'own' our profession," he says. "We are responsible for what you do, or, don't do for your patients. I know that the residents like to work with the latest technology but that doesn't always lead to better treatment outcomes. For example, while cone-beam CTs can provide more detailed information, it is no substitute for clinical judgment and expertise in how that information is applied."

It is also important, Dr. Sabat says, to maintain high standards, even if no one but you will ultimately know what goes into your work. "When you treat a patient, no one may know the quality and the concern for detail in that effort, except you," he says. "I encourage the

students to focus on details. I also challenge the students to be accountable. You have to perform. Orthodontics, and dentistry in general, is a performing art, and we all must perform well. Essentially, always do what is best for the patient. Even if only you know that you've put forth that extra care and effort. In my opinion, that is the definition of a professional. Excellence consists of consistent attention to detail," Dr. Sabat adds. "You must strive to be better and increase your percentage of successfully treated cases in your practice. I want our students to leave this program having experienced being part of exceptional treatment results so they have a vision of what great treatment means."

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"Everything is increasingly complex today, though students don't often realize that right away," says Dr. Sabat. "Initially, as one enters private practice, things might seem simple, but as you practice longer, you begin to notice the nuances. This is partly because you are practicing with real patients out in the real world without the support of the educational environment. To become a successful orthodontist, you must develop your people skills. There is no getting around it; we are in the people business.

"My teaching philosophy also encompasses this very important point: Rather than trying to look for a mentor, try to arrange your life in such a way to become one. I can't tell you how many times I've been at alumni events or meetings and I have had former students come up to me and tell me, 'I didn't appreciate what you were trying to tell me, until later, when I was in my own practice.'

"I keep returning to teaching because of what I see happening in our culture. There seems to be a general lack of acceptance of responsibility. Also, today there is more emphasis on the business side of the practice than ever before. While this is often out of necessity, and not that this is unimportant, but there is a decreasing emphasis placed on what is in the best interest in the individual patient.

"This last point goes back to accountability for one's work," says Dr. Sabat. "I see residents having patients transferred to them from a previous class and never having the same level of interest and ownership for the treatment outcome as they have for the patients where they initiated the treatment process. I hope that my emphasis on details would change this attitude." If you treat a patient, you must own the outcome."

Whi hd ∡ic a acaee?

"I didn't choose a career, it chose me. As a child, I needed orthodontic treatment," says Dr. Sabat. "And, I had an uncle who was a dentist. He advised and inspired me to go to college with the hope that I would choose dentistry. In the 9th grade I had to write an autobiography and in the last chapter I wrote that I was going to become a dentist. I entered Western Reserve University. After two undergraduate years, I was accepted into the early-admissions program at the dental school. I loved it, and when we were introduced to the area of orthodontics, I felt my calling.

"While I was in orthodontic training, I met a dental hygiene student, Lynda, who recognized that she needed orthodontic treatment. One day she showed up in the orthodontic department and the department chairman, Dr. Richard Beatty, asked if one of the residents would volunteer to accept another case. I volunteered and that's how I met my wife.

"Lynda has a career in teaching hygienists and served 10 years on the Ohio State Dental Board, and is now an examiner for NERB. I continue to volunteer for her as well as the dental school. The learning curve in orthodontics is long, and I am still learning. As I see children of my patients coming into my practice, I learn about long-term results. We can never stop observing and learning, as we continue our journey of the mastery of the art and science of orthodontics."

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Dr. Sabat sees the future of orthodontics as a continuum of the comprehensive care we as orthodontic specialists have always provided for our patients. He sees a particular opportunity now for the emphasis on the long-term benefits of what orthodontic treatment can provide for patients of all ages. And, today we are more conservative with treatment. "We can make space for crowded teeth while that patient is still quite young and growing, provide dental facial orthopedics, to improve facial balance, and position the teeth better with in the face and smile. We can also establish better periodontal health and more ideal function.

"We also now provide service for adults who need reconstructive work," he says. "They may need help with teeth that have drifted, or they might need bridgework. There is a lot of malocclusion in adults, whether untreated or, previously treated. We can correct this, and set the stage for more ideal and longer-term predictable restorative dentistry. Teeth in their ideal and most stable position, supported by healthy bone and soft tissue, provide the best foundation for restorative dentistry and are easiest for the patient to keep clean. And, they have the best esthetics. Comprehensive dentistry is by nature, esthetic dentistry, as we in the specialty of orthodontics have always known. We have to tell our story to the public.

"As always, the message here is to provide the highest level of care for each patient. "Treat the malocclusion first," says Dr. Sabat, "only then, take care of the upper front teeth. Comprehensive orthodontic care as provided by an orthodontic specialist, is at the forefront of the evolution of dentistry." (Healthy Teeth, face, smile, and function = your life)

No matter what area of dentistry Dr. Sabat is teaching, he implores his students to remember: "Always ask yourself, 'What treatment is in the best long-term interest of this patient?' And what treatment procedures will work best for this patient? If you keep these thoughts uppermost in your mind you will refine your diagnostic skills and have improved outcomes."

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