



SCHOOL OF DENTAL MEDICINE

CASE WESTERN RESERVE
UNIVERSITY

Case Western Reserve University

Moto: Think Beyond the Possible

Submitted by Dr. Juan Martin Palomo, Director of Orthodontic Residency

SNAPSHOT

- Location: Cleveland, OH
- Program Length: 30 Months
- Average Graduating Class: 5
- Tuition: Yes
- Unique Facts: Case has 16 Nobel Laureates
- CWRU established 1826
- Orthodontic Residency established 1959
- Website: orthodontics.case.edu

Case Western Reserve University has a history that may be a little more complicated than most other universities, and justifies its rather long name.

Western Reserve College was founded in 1826 in Hudson, Ohio, about 30 miles southeast of Cleveland. The college—the first in northern Ohio—took its name from the surrounding region (known at that time as the Western Reserve of Connecticut) and emphasized standards, such as the classics, in its curriculum. Yet it stood out in the mid- and late-19th century as one of only a few institutions that sought innovation and embraced the sciences. By 1887, the college had begun hiring forward-thinking scientists, including Edward E. Morley, best known for his collaboration with fellow professor Albert Michelson on the Michelson-Morley Experiment, which inspired

Albert Einstein's work in relativity. As the 20th century neared, the city of Cleveland, Ohio, was on the rise. A post-war economy vaulted Cleveland to the forefront of American cities with unprecedented population and financial growth. And it was hungry for a university. With funding from American industrialist Amasa Stone, the college moved in 1882 to "uptown" Cleveland, where it lives today, and assumed the name Western Reserve University. But the new university wouldn't occupy this stretch of Euclid Avenue alone. In 1877, Leonard Case Jr., a philanthropic citizen of Cleveland and early benefactor of the engineering school, began laying the groundwork for the Case School of Applied Science. He initiated a secret trust to endow a polytechnic school in Cleveland. This school would train men in engineering and applied science, enabling them to build on a young, growing nation's vast resources. Within four months of his death in 1880, the trust was administered and the Case School of Applied Science was born.

Classes initially were held in the Case family's downtown Cleveland home until a provision to Stone's gift—that Western Reserve University and the Case School of Applied Science occupy adjoining campuses—led to the school's relocation in 1885 to what is now known as University Circle on the city's east side. Funds for the land, however, had to be raised by the community.

The two institutions agreed their 1967 federation would create a complete university worthy of national distinction. Case Western Reserve University immediately became a leading institution for academics and research, as well as one the nation's top-ranked universities.

The department of orthodontics also has a great history in the area of imaging. It was here that the cephalometer was first invented by Dr. B. H. Broadbent Sr., and the Bolton-Brush Growth Study took place. We continue with the imaging tradition, having access to cutting edge 3D imaging and scanner technology.

CLINICAL EDUCATION OF ORTHODONTIC RESIDENTS

The clinical training of orthodontic residents encompasses all aspects of current orthodontic practice including: teenage clinic, early treatment, adult treatment, craniofacial anomalies, and orthognathic surgery.

The length of the orthodontic program is a minimum of 30 months. In a program of 30 months it is not possible to produce a seasoned and skilled orthodontist, therefore, our program strives to produce a competent beginner. Accordingly, the clinical load of patients is chosen to match the

teaching goals of the department. There is an option to extend the program to 36 months. The 36 month option satisfies the European specialty training standards (ERASMUS).

FIXED ORTHODONTIC APPLIANCE TREATMENT- CORE CLINIC

The majority of the cases treated in the graduate department are in the teenage clinic or core clinic. The orthodontic resident spends 29 months treating patients within this clinic. During the first year of the program each resident starts up to 50 new patients to be treated on 4 clinic mornings, and 1 afternoon per week. During the fall semester core clinic patients are the only patients being seen by first year residents. The philosophy of this assignment is that fixed appliance therapy is the "bread and butter" of private orthodontic practice and a solid grounding in basic diagnosis and treatment planning is necessary to produce a competent orthodontist. It is expected that by December of the first year the resident will have all cases bonded and treatment will be in progress.

To assure equal distribution of orthodontic cases, and a similar experience by the residents, all cases have their severity evaluated using the ABO discrepancy index (DI), and case distribution is done assuring that each resident has cases in all ABO categories.

The core clinic half-days are Monday through Thursday mornings with occasional afternoons held as a reserve time during the first semester. In addition to the clinical instruction gained by treating patients in these core clinics, a companion seminar serves to provide didactic teaching of clinical orthodontics. This core seminar is for first and second year residents. These seminars take place from 8:00 am to 9:00 am Monday through Thursday. During the first year, a series of lecture topics is presented by the core clinic faculty. Following this, the second year of the seminar is devoted to case review. The first part of the case review involves a review of selected cases that are currently being treated in the core clinic. This portion of the second year seminar is termed "Problem Case Review." Following the Problem Case Review, the remaining seminar time is devoted to the review of certain selected case mechanics as well as treatment philosophy completes the core instruction in clinical orthodontics.

SUB-SPECIALTY CLINICS

After the semester break the first year residents are introduced to the "sub-specialty" areas of orthodontic practice. These areas are introduced on a lecture basis during the fall in preparation

for beginning in January. Additional cases are assigned to the first year residents in January to be seen in the sub-specialty clinics. The sub-specialty clinics are:

Adult Treatment

Craniofacial Anomalies

Early Treatment (Functional Appliances)

Orthognathic Surgery

PROGRAM EFFECTIVENESS

The graduate students in orthodontics are evaluated on an ongoing basis, including:

- Faculty feedback formally collected biannually, but informally on a regular basis. Full time faculty meets weekly and discusses residency status on ongoing basis;
- Clinical Examination during Second and Third year, where residents show their own progress/finished cases and diagnose/treatment plan a surprise case (mock ABO clinical exam, with cases prepared following ABO format);
- Grading of every finished case by a calibrated faculty, using the PAR index. The percentage of improvement for every case is also calculated;
- Individual evaluation by an outside examiner, during second and third year of residency (reports available onsite);
- Performance on ABO written exam during second year;
- Computer entry and chart review audits;
- GPA in program coursework;
- Thesis committee meetings.

The students receive regular feedback on their performance, and meet with the program director biannually where their performance is evaluated separately for didactic, clinical, and research components. At this individual meetings, their performance up to this point is discussed, as well as expectations for the next 6 months.

An alumni survey is conducted every 7 years to collect information about our graduates.

The Program is also evaluated as a whole by an external examiner on an annual basis. The external examiner is somebody who has no ties with our department, and alternates between an orthodontist in academics, clinical practice, and organized dentistry.

RESEARCH

The department has an ongoing commitment to maintain its leadership role in the area of research. Each resident is encouraged to select his/her own research topic for his/her Master's thesis. The thesis is to be submitted in partial fulfillment of the Master's degree and should be completed within the first 24 months of the program. All residents are required to produce a Master's thesis, and the department does not award a certificate degree without the Master's.

Specific areas of ongoing research in the department include:

1. Three Dimensional Imaging in Orthodontics
2. Craniofacial Anatomy and Obstructive Sleep Apnea Syndrome.
3. Retention in Orthodontics
4. Growth and aging of the human face
5. Outcome of orthodontic treatment and demographics of orthodontic practice.

COMMUNITY RESOURCE

The department functions as a community resource on two levels. First, the treatment of patients within the orthodontic clinic is recognized as a significant community service.

The department also serves the community as an educational resource with occasional appearance in newsletters, newspaper, and television, to teach about the benefits of orthodontic treatment.

FACULTY

The quality of our faculty is what makes our program efficient and productive. The CWRU Orthodontic program has 6 full time faculty and 15 part time faculty, with a FTE of 7.

Among our faculty we have coming on a regular basis:

Full Time

Dr. Juan Martin Palomo – Program Director

Dr. Mark G. Hans - Chairman

Dr. Howard Kossoff – Clinic Director

Dr. James Trouten

Dr. Manish Valiathan

Dr. Bruce Latimer

B. D. Amberman

Part Time and Didactic

Dr. Anwar Alhazmi

Dr. Lisa Alvetro

Dr. Sebastian Baumgaertel

Dr. Jackie Berkowitz

Dr. Liz Bujack

Dr. Norman DeLoach

Dr. Donald Gustovich

Dr. Thomas Herberger

Dr. Eric Lawrence

Dr. Ken Lawrence

Dr. Valerie Martone

D Dr. Zack Mellion

Dr. Celestino Nobrega

Dr. Michael Sabat

Dr. Sharon Schmahl

Dr. Andrew Skorobatchkyj

Dr. Chris Spoonhower

Dr. Dennis Ward

Dr. Ryan Wenger

Dr. Terrence Wenger

Dr. John White