



PENN ORTHODONTICS 1916-2016

ADVANCING THE STUDY AND PRACTICE OF ORTHODONTICS
AT PENN DENTAL MEDICINE FOR 100 YEARS

PENN DENTAL MEDICINE'S Department of Orthodontics marks its centennial anniversary this year, celebrating 100 years of advancing the study and practice of orthodontics. Formally established in 1916 under the leadership of Dr. John Mershon, over the past century, the Department's programs have developed an international reputation for excellence in the field, both through a long line of deeply committed and esteemed faculty and the widespread achievements of its many accomplished students and alumni.

"Penn orthodontics has always been a leader in clinical excellence as a result of its strong faculty and excellent students, and we

.....
OPPOSITE: The current standing faculty within the Department of Orthodontics (left to right in blue): Drs. Guoqiang Guan; Robert Vanarsdall (GD'72, GD'73); Chun-Hsi Chung (D'86, GD'92), Chairman; and Hyun (Michel) Koo; with residents (left to right in yellow): Drs. Brianna Yang (D'15, GD'17), Christine Martin (D'14, GD'16), Farraj Saad Albalawi (GD'17), Cherissa Chong (C'09, W'09, D'12, GD'16), and Sara Malenbaum Kasten (D'13, GD'16).

RIGHT: The first chairman of the Department of Orthodontics, Dr. John Mershon, who led the Department from 1916-1924.



must maintain that for the future," says Dr. Chun-Hsi Chung (D'86, GD'92), the Chauncey M.F. Egel Endowed Chair of Orthodontics, who joined the faculty in 1992 and has been leading the Department since 2011 (interim 2011-2012). In this special anniversary year, he notes that it is a time to not only reflect on the Department's rich history, but also build on those strengths going forward. "I want to continue to push our Department nationally and internationally to the highest level it can be."

SOME HISTORICAL PERSPECTIVE

Of all the dental specialties, orthodontics was among the earliest to emerge and Penn Dental Medicine has historic ties to its earliest days. It was in 1899 that Dr. Edward H. Angle (1855-1930), generally regarded as the “father of modern orthodontics¹,” classified the various forms of malocclusion and is credited with making orthodontics a dental specialty,² establishing the first school of orthodontics in St. Louis in 1900. But his training as a dentist began in Philadelphia — at the school that would eventually merge with the University of Pennsylvania School of Dental Medicine; Angle also greatly influenced the first Chairman of Penn Dental Medicine’s Orthodontics Department, Dr. John Mershon, who studied under him. Penn Dental Medicine Dean Denis Kinane recalls the historic connection:

“As we celebrate the 100-year anniversary of orthodontics at Penn we should take a wider perspective of our history. In 1856, the Pennsylvania College of Dental Surgery began, and in 1878, their dean and most of the students and faculty left to spawn Penn’s dental school, completing the migration in 1909,” notes Dean Kinane. “That same year, 1878, Edward Angle graduated [from Pennsylvania College of Dental Surgery], and a year later W.D. Miller graduated from our school. Orthodontics in Pennsylvania continues to go from strength to strength, and today, Dr. Chung epitomizes this effort as he masterfully ensures a wonderful quality of both clinical and didactic education in an exciting backdrop of research innovation with notable DScD [Doctor of Science in Dentistry] successes among our students.”

“Research is a major factor driving the profession forward. While nationwide fewer ortho graduates are interested in staying in academics full-time to pursue research, we are seeing growing success in building interest in both the DScD and MSOB that provide a path to an academic career.”

— DR. CHUN-HSI CHUNG (D’86, GD’92)

Dept. Chairs 1916-2016

Of the eight department chairmen in the 100-year history of the Department of Orthodontics, three were Penn Dental Medicine graduates.

Dr. John Mershon	First Chairman, 1916-1924
Dr. A. Leroy Johnson	
Dr. Frederick R. Strathers	
Dr. Paul V. Reid	
Dr. James Ackerman (D’60)	
Dr. Ronald Johnson (combined ortho/pedo)	
Dr. Robert Vanarsdall (GD’72, GD’73)	
Dr. Chun Hsi-Chung (D’86, GD’92)	
	Present Chairman, 2011 - present

Tracing back from Dr. Chung today to Dr. Mershon in 1916, the department has been led by a total of eight chairmen, three of whom graduated from Penn Dental Medicine (see above). Dr. Robert Vanarsdall (GD’72, GD’73), who served as Chair from 1982 through 2011 and Director of the Postdoctoral Orthodontics Program from 1981 to 2010, remains Professor and Director of the Orthodontics/Periodontics Postdoctoral Program. As a member of the faculty for 44 of the Department’s 100-year history, he has played a pivotal role in developing the Department’s strength and leadership in clinical instruction, including leading the formation of the dual Orthodontics/Periodontics Postdoctoral Program in 1975 (still the only ADA-approved program of its kind). He also brings a unique historical perspective not only of Penn orthodontics but of the field overall.

“Orthodontics is part of a total approach to dental health, it’s not just for cosmetic value,” says Dr. Vanarsdall, who earned both his orthodontic and periodontic certificates at Penn Dental Medicine. “I came here to learn to save teeth as a student, and we’ve continued to instill that view in our program as faculty. We talk about periodontal issues in our orthodontic seminars — they don’t do that everywhere, but it’s been a hallmark of our program for years.” Dr. Chung adds that the early and strong incorporation of periodontics into orthodontics at Penn also made the School one of the early leaders in adult orthodontics.

For current resident Dr. Cherissa Chong (C’09, W’09, D’12, GD’16), it was that interdisciplinary approach to patient care that attracted her to the Penn program. “The synergy between periodontics and orthodontics appealed to me in dental school,” says Dr. Chong, who will complete the dual Orthodontics/Periodontics Program this year along with a Master of Science in Oral Biology (MSOB). “Understanding the role each specialty plays in providing a comprehensive treatment for the patient is critical. One of the strengths of this program is providing a bridge between both specialties. It is truly a privilege to be able to help patients on a daily basis and create healthy and beautiful smiles that will last a lifetime.”

Legacy of Leadership

The American Board of Orthodontics (ABO) was founded in 1929 as the first specialty board in dentistry; when Dr. Chun-Hsi Chung (D’86, GD’92), Chair, becomes president in 2017, that will make six Penn orthodontics alumni to have served in this leadership post.

ABO President	
Chun-Hsi Chung (D’86, GD’92)	2017
<i>(assumes presidency in May 2017)</i>	
Peter M. Greco (D’79, GD’84)	2009
Joseph Damone (D’65, GD’72)	2001
Rocco J. Di Paolo (D’47)	1993
J. Daniel Subtelny (D’47)	1975
Jacob A. Salzmann (D’23)	1961



notes Dr. Jeon. Through her DScD, Dr. Jeon's research earned her the "Young Investigator Award" from the International Association of Dental Research in 2015.

Fellow resident and DScD candidate Dr. Farraj Saad Albalawi (GD'17) says "the DScD is allowing me to get the most out of my Penn education." He is conducting research in the lab of Dr. Claire Mitchell, Associate Professor, Department of Anatomy & Cell Biology, on linking mechanical strain to cytokine release. While MSOB candidate Dr. Sara Malenbaum Kasten (D'13, GD'16) has been working in the craniofacial research lab of Clinical Associate Professor of Orthodontics Dr. Hyun-Duck Nah at Children's Hospital of Philadelphia, evaluating the delivery systems for bone-graft materials for children with craniofacial defects.

PRODUCING "SCHOLAR CLINICIANS"

Indeed, it is students like Dr. Chong who continue to build the legacy of the Department. "Our stellar students and in turn our accomplished alumni have made our Department a front runner," observes Dr. Peter Greco (D'79, GD'84), Clinical Professor and Co-Director of the Orthodontic Clinic. "Our program is known for producing scholar clinicians."

The highly competitive orthodontic program continues to attract top students from across the country and around the world — applications average 233 for the seven orthodontic residency spots in each class, and in 2015, 14 applied for the one annual spot in the Orthodontics/Periodontics Program. Among the current group of residents, along with the nine in the two-year orthodontics program, there are five residents pursuing their certificates in the three-year MSOB and five in the five-year DScD programs — both research focused. And of the four orthodontics/periodontics residents, two are also earning their MSOB.

"Research is a major factor driving the profession forward," says Dr. Chung. "While nationwide, fewer ortho graduates are interested in staying in academics full-time to pursue research, we are seeing growing success in building interest in both the DScD and MSOB that provide a path to an

"Our stellar students and in turn our accomplished alumni have made our Department a front runner. Our program is known for producing scholar clinicians."

— DR. PETER GRECO (D'79, GD'84)

academic career." The DScD program was introduced at Penn Dental Medicine in 2011, and the Orthodontics Department's first DScD graduate — Dr. Hyeran Helen Jeon (GD'16) — will earn her degree this year.

"My long-term goal is to become a clinician-scientist within a dental school," says Dr. Jeon. She is well on her way. Working in the lab of Dr. Dana Graves, Professor and Interim Chair of Periodontics, her DScD thesis project is on the role of FOXO1 on angiogenesis and epithelial-mesenchymal transition during both normal and diabetic gingival wound healing. "I see this project as the starting point for my long-term research goal of expanding the field of diabetes, angiogenesis, and bone remodeling in orthodontics,"

ABOVE: Dr. Peter Greco (D'79, GD'84), Clinical Professor and Co-Director of the Orthodontic Clinic, with residents in the clinic.

"With one of my ongoing priorities being to elevate scholarly activities within the Department, the DScD and MSOB programs are playing a vital role in that among our residents," adds Dr. Chung.

ADVANCING CLINICAL TRAINING

In the realm of clinical training, the orthodontics program has been recognized throughout its history for the depth of its clinical instruction and that continues to be a strength that draws students and helps them excel as clinicians. Today, balancing students' time between exposure to new, rapidly emerging clinical technologies with the teaching of foundational orthodontics is one of the greatest challenges, notes Dr. Guoqiang Guan, Director of the Postdoctoral Orthodontics Program and the Department's newest standing faculty member, who joined the School last summer from State University



of New York at Buffalo. “Both need to occur, but we remain committed to the importance of a strong foundation first,” he says.

“The clinical curriculum continues to rapidly evolve as new techniques become available and the diversity of faculty plays an essential role in this respect,” adds Dr. Guy Coby (GD’87, GD’90), Clinical Associate Professor of Orthodontics and Co-Director of the Orthodontic Clinic. “Many of our faculty members have unique expertise that allows our residents to use techniques in patient care that residents at other institutions only read about.”

Resident Dr. Sara Malenbaum Kasten (D’13, GD’16) agrees. “Above all, I have been amazed by the diversity in our curriculum. I’ve learned there are many ways to get from A to B,” she says. “The introduction to different treatment techniques and orthodontic philosophies has given me great confidence to enter the ‘real world.’ The incredible faculty is the real strength of our program.”

Presently, the orthodontics faculty includes 46 associated clinical faculty members and four standing faculty. Dr. Guan and Dr. Hyun (Michel) Koo, Professor, who joined the School in 2013, are the newest standing faculty. Dr. Koo, with joint appointments in the Department of Orthodontics and Divisions of Pediatric Dentistry & Community Oral Health, has added to the scholarly activities of the Department with a research focus on pathogenic biofilms and tooth decay.

While adding to the full and part-time faculty is among Dr. Chung’s priorities moving forward, he notes the ongoing con-

tributions many longtime members continue to make to the Department, including Dr. Jerome Skarloff, Clinical Professor of Orthodontics, with a remarkable 64 years of service.

ENHANCING CLINICAL EXPERIENCE

Another step to help advance clinical training within the orthodontics program is set to launch in the 2017 application cycle when the 24-month residency will become a 26-month program. “Our goal with this extension is to give students more clinical experience and added time to help them prepare more cases toward the American Board of Orthodontics (ABO) certification examination,” says Dr. Chung, who will begin his term as ABO President in 2017 (see page 10). While these two additional months may not allow enough time for residents to complete all of their Board cases by graduation, it will help them to move closer to that goal. “We’re excited about the added help this will give our residents,” he says.

“The introduction to different treatment techniques and orthodontic philosophies has given me great confidence to enter the ‘real world.’ The incredible faculty is the real strength of our program.”

— DR. SARA MALENBAUM KASTEN (D’13, GD’16)

CALLING ALL ORTHO ALUMNI

Going forward in this centennial year, plans are set for a number of special programs, including two internationally focused continuing education events — one in Beijing in May and another week-long immersion program at Penn Dental Medicine in October, targeted to clinicians from Asia, Europe, and South America, in advance of the Department’s Alumni Day, October 28.

And setting the stage for future development is the Penn Ortho Centennial Campaign (see adjoining page). The opening of

the Brainerd F. Swain Orthodontic Clinic 10 years ago was a milestone for taking the orthodontics program to a new level, and now, the Department is looking to build on its facilities, student scholarship, and research resources once again with the Centennial Campaign.

Dr. Vanarsdall recalls how Dr. Greco and his campaign co-chair at the time — another devoted alumnus and faculty member Dr. J. Henry O’Hern (D’53, GD’55) — helped to build tremendous alumni support for the clinic construction, and he is optimistic alumni will enable the Department to reach the \$1 million goal for this current campaign as well. “We truly do have the most loyal alumni,” says Dr. Vanarsdall. “They are like family.”

In looking to the future of Penn orthodontics, perhaps it is this legacy of alumni connections to each other and the School that is one of the most enduring distinctions for the program’s current students. “When choosing a residency program, I saw the

loyalty among alumni as one of the many advantages of Penn,” recalls Dr. Christine Martin (D’14, GD’16). First-year resident Dr. Brianna Yang (D’15, GD’17) agrees. “It’s truly amazing to see alumni staying active in the Department. Their unyielding commitment to this program is inspiring. I hope to follow their example and do the same.” ■

¹ Asbell AB. A brief history of orthodontics. *Am J Ortho Dentofac Orthop.* Sept 1990; 206-212

² American Dental Association, History of Dentistry Timeline, www.ada.org.

— By Beth Adams

ABOVE: Dr. Jerome Skarloff, Clinical Professor of Orthodontics, continues to share his wisdom with students. He has served as part of the faculty in the Department of Orthodontics for 64 years.

Penn Ortho Centennial Campaign

As the Department of Orthodontics celebrates its 100th anniversary in 2016, the Penn Ortho Centennial Campaign is underway to build vital resources for the Department and its programs now and well into the future. The Centennial Campaign will support three complementary initiatives — expansion, resident scholarships, and an opportunity fund for research and scholarship.

EXPANSION. The Centennial Campaign will enable the Department to add three–four new operatories to the School’s Brainerd F. Swain Orthodontic Clinic. The added chairs will accommodate the growing number of residents pursuing their orthodontics certificate with the Master of Science in Oral Biology (MSOB) and Doctoral of Science in Dentistry (DScD) degrees. The Campaign will also support improved digital capabilities, enhancing the orthodontic teaching environment.

RESIDENT SUPPORT. Residents are the Department’s most important legacy and its contribution to moving the profession forward. The Centennial Resident Support Fund will provide resources for students who need help with tuition or engaging in extramural professional activities. For instance, the class of 1988 with friends in other years has established the Robert Vanarsdall Scholarship Fund.

OPPORTUNITY FUND. To preserve and enhance the excellence of the Department, funds are needed to support new junior faculty members, to invite guest speakers, and to host important seminars and colloquia. The Orthodontics Opportunity Fund will provide resources for the Department to remain a leader in orthodontic research, education, and practice.

“Penn orthodontics is an internationally recognized, premier orthodontic program. But this legacy will only continue if the facilities and curriculum keep pace with our ever changing field,” says Dr. Guy Coby (GD’87, GD’90), co-chair of the Ortho 100 Committee. “We can’t fool ourselves that we will retain our place in history by resting on our laurels. This is why our present Penn Ortho Centennial Campaign is so important. It clears the path for us to move forward.”

We invite you to invest in the Department’s future through the Penn Ortho Centennial Campaign. To date, \$660,000 of the \$1 million goal has been reached — join your classmates and help the Department cross the finish line in this anniversary year. Every gift makes a difference and all donors will be recognized through a prominently displayed centennial plaque at the following levels:

Founder	\$100,000 and above
Fellow	\$25,000 – \$99,999
Ambassador	\$5,000 – \$24,999
Associate	\$1,000 – \$4,999

To make a gift online visit www.dental.upenn.edu/ortho100. For more information, contact Maren Gaughan, gaughan@upenn.edu, 215-898-8952.

Save the Date: Ortho Alumni Day 2016

Join in celebrating 100 years of Penn Orthodontics
Oct. 28, 2016, Union League of Philadelphia
Speakers: Dr. Raymond Fonseca and Dr. Tim Turvey

Learn more and register: www.dental.upenn.edu/orthoalumniday

CELEBRATING

100

YEARS OF PENN ORTHODONTICS | 1916-2016

Ortho 100 Committee

Co-Chairs

Guy T. Coby, GD’87, GD’90

Warren D. Woods, GD’82

Committee

Paul J. Batastini, GD’72

Frank Besson Jr., D’94, GD’96

John M. Capogna, GD’88

Chun-Hsi Chung, D’86, GD’92

Jenny C. Chung, GD’79

Patrick Cuozzo, GD’97

Francis G. Forwood, D’77, GD’79

Peter M. Greco, D’79, GD’84

John L. Hayes, GD’86

Anil J. Idiculla, C’98, G’Do6

David Tai-Man Shen, D’79, GD’81

Damon Szymanowski, GD’05

Nipul K. Tanna, D’90, GD’91, GD’10

Tejy M. Thomas, D’06, GD’11

Robert L. Vanarsdall Jr., GD’72, GD’73

“We can’t retain our place in history by resting on our laurels. That’s why our present Penn Ortho Centennial Campaign is so important. It clears the path for us to move forward.”

— DR. GUY COBY (GD’87, GD’90),
ORTHO 100 COMMITTEE CO-CHAIR