

OHNS Spotlight

February 2023

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Letter from the Chair

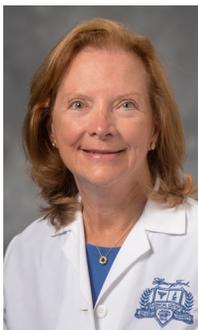
Colleagues,

Curiosity leads the way for research within the department. Exciting things happening with endocrine surgery and Dr. Michael Singer is involved nationally on the forefront of discovery. If you are not familiar with radiofrequency ablation for benign nodules, Radiofrequency ablation (RFA) is a percutaneous treatment that results in thermal tissue necrosis and fibrosis. As a result of this process, the nodules shrink. Clinical trials in Italy and South Korea demonstrated a 50 to 80 percent durable nodule shrinkage after thyroid nodule RFA. Henry Ford Health hopes to offer this technology to our patients in 2023.

Dr. John Craig, let his curiosity lead him to collaborate with our colleagues in oral maxillofacial surgery and dentistry to investigate odontogenic sinusitis (ODS). This research led to the development of an international multidisciplinary consensus statement on diagnosing ODS, highlighting the importance of collaboration between otolaryngologists and dental providers for diagnosis and treatment.

The Covid pandemic forced the medical community to embrace the opportunities that virtual visits could assist with health care equity for our patients. Dr. Ilaaf Darrat, pediatric otolaryngology, embraced telemedicine and led Henry Ford Health in its initiatives. It is comfortable to fall back into old habits, so continuing to push the boundaries of telehealth will benefit our patients for access to quality health care.

Sincerely,



Kathleen L. Yaremchuk, M.D.

Chair, Department of Otolaryngology
Head & Neck Surgery
Division of Audiology, Oral Maxillofacial Surgery
Section of General Dentistry
President, American Academy of Otolaryngology/HNS
Chair Emeritus, HFMG Board of Governors
Senior Staff, Division of Sleep Medicine
Professor, Wayne State University School of Medicine
Professor, Michigan State University School of Human Medicine

Please join us on October 3, 2023
in Nashville for a reception given
by the new President of
the American Academy of
Otolaryngology/Head & Neck
Surgery, Kathleen Yaremchuk, M.D.

Advances in endocrine surgery

Innovation for optimizing thyroid and parathyroid patient outcomes

The last 2 decades have seen transformational changes in the diagnosis and management of patients with thyroid and parathyroid diseases. These developments have allowed for greater customization of care while also providing ever improving cosmetic and functional outcomes.

Technological innovations are at the heart of many of these advances. For example, strides in nerve monitoring equipment and techniques have resulted in better voice outcomes after surgery. Advanced energy devices, endoscopes and then the surgical robot allowed for the development of minimally invasive and ultimately remote access surgeries.

Several new developments represent the continued evolution of endocrine surgery. These additions promise to allow even greater tailoring of care and improved surgical outcomes.

Radiofrequency ablation represents a logical extension of the less aggressive and more minimally invasive philosophy that has been at the heart of many of the changes seen in the care of patients with thyroid.

Fluorescence imaging of the parathyroid glands is a harbinger of the augmented reality that is likely to play a prominent role in future surgery. This type of technology will allow surgeons to more rapidly and effectively view and interact with the surgical field.

Radiofrequency Ablation (RFA) for benign thyroid nodules

Nodular thyroid disease is common entity in the United States and internationally. In the United States it is estimated that by age 60 about half of the population will develop a thyroid nodule.

While most thyroid nodules are subclinical, many patients present with disease that requires diagnosis and treatment. Most of these patients have benign disease which, if extensive enough, can cause compressive symptoms or cosmetic concerns. In some instances, nodules are a source of hyperthyroidism requiring treatment.

Historically, surgical intervention was required in these patients to alleviate their symptoms. While minimally invasive or remote access techniques decreased the impact of surgery compared to traditional approaches, the possibility of surgical complications and hypothyroidism still existed.

Radiofrequency ablation (RFA) has been employed by physicians in other areas for decades. In RFA, excision of the offending tissue is replaced by thermal ablation. A needle-like probe is inserted into the thyroid nodule and radiofrequency waves then generate the heat that causes tissue necrosis and ultimately fibrosis. While performed in Korea for a number of years, RFA for thyroid nodules was only recently initiated in the United States.

When performed by a skilled operator, RFA has been shown to be both safe and quite impactful in regard to reducing nodule size and related symptoms. Importantly, it offers several advantages over traditional surgery – it can be performed in the office or outpatient setting and requires no general anesthesia, it permits patients to return to full activities rapidly and, perhaps most importantly, nearly eliminates the risk of hypothyroidism.

Initiating a RFA program for benign thyroid nodules at Henry Ford extends the armamentarium available to physicians treating these patients. This dovetails with an institutional philosophy focused on tailored treatment approaches. With the full treatment spectrum available to patients, they can select the path that they feel most optimally manages their disease and addresses their priorities.

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Fluorescent imaging technologies

The ability to identify parathyroid glands (PG) is a fundamental component of successful thyroid and parathyroid surgery. Historically, the ability to recognize, preserve and then assess the viability of the PGs relied fully on the skill and judgment of the surgeon. Several devices, some camera-based and others probe-based, are now FDA approved to act as a real-time tool to aid in these steps of surgery. For thyroid surgery, these may help reduce both temporary and permanent hypoparathyroidism. In parathyroidectomy, more rapid and conclusive recognition of PGs may serve to provide patients with higher cure rates achieved more efficiently.

These near infrared imaging (NIRI) technologies can assess the degree of fluorescence present with the aid of a contrast agent (such as indocyanine green), demonstrating the degree of perfusion of the PGs. Perhaps more interestingly is the recognition that PGs can autofluoresce (AF) without enhancement (by ICG or other agent). The same NIRI devices can be used to assess for fluorescence or AF.

The AF concept is distinct from other techniques in that PGs have an endogenous fluorophore that emits NIR light at a peak emission wavelength of 820nm when illuminated with light at 785nm. The mechanism of near infrared autofluorescence (NIRAF) of PGs is still unclear, but there are several studies that suggest the calcium-sensing receptor protein as a potential fluorophore candidate.

One of the major problems with using ICG based imaging is that with injection everything in the field tends to fluoresce. Thus, differentiating the PGs from the thyroid gland, for example, can be quite challenging, even for experienced surgeons. NIRAF identification largely avoids this issue as the degree of AF of the PGs is conspicuously greater than the surrounding tissues.

Importantly, these technologies and techniques are early in their development. The precise role of these technologies in clinical care has yet to be determined. Active research is being conducted with this technology at Henry Ford. One Henry Ford Health study demonstrated that the use of frozen section analysis of parathyroid tissue may no longer be needed if this technology is employed. Further studies are now underway to evaluate their impact on rates of hypoparathyroidism and their possible ability to differentiate normal from pathologic PGs.

Leading edge of endocrine surgery approaches

These new technologies are both promising. However, careful evaluation of clinical outcomes combined with further research is needed to understand their precise benefits/risks and ultimately value to patients.



Michael C. Singer, M.D., FACS, FACE is Director, Division of Thyroid & Parathyroid Surgery Department of Otolaryngology – Head and Neck Surgery

To request a consult or referral to a Henry Ford Health physician call (877) 434-7470 or [refer a patient online](#). To learn more visit the [thyroid disorders web page](#) at Henry Ford Health.



Save the Date

Join us at the 10th annual head and neck cancer symposium that will take place May 12, 2023 at Orchard Lake Country Club in Orchard Lake Michigan, bringing together experts from all over the US in the fields of medical oncology, surgical oncology and radiation oncology. The speakers will discuss the clinical care of head and neck cancer patients across several different fields of research including clinical trials, translational research, and patient centered research.

Building local and global awareness on odontogenic sinusitis

Building local and global awareness on odontogenic sinusitis

Odontogenic sinusitis (ODS) is a fascinating form of sinus disease that is distinct from other types of rhinosinusitis. ODS is infectious sinusitis caused by either dental infection or dental procedures involving the upper teeth or maxilla. There are multiple ways that infection can spread from the teeth to sinuses, and in some scenarios, to the eye, brain, or rest of the body.

A common condition with limited research

ODS is more common than previously thought, accounting for 25%–40% of all chronic maxillary sinusitis. However, it occurs unilaterally most commonly, representing 45%–75% of unilateral maxillary sinus opacification on computed tomography. Despite the condition being quite common, many doctors and dental providers miss the diagnosis.

One reason for missing the diagnosis could be that ODS has represented only about 1% of the sinusitis literature over the last 20 years, and prior publications were unfortunately of low quality. Therefore, low publication volume and quality have likely contributed to ODS being underrepresented in even the most recent national and international sinusitis guidelines. More specifically, recent guidelines do not discuss how to diagnose or manage ODS. Fortunately, ODS publication volume and quality have been increasing over the last 5–6 years, and Dr. John Craig has been contributing to this resurgence in ODS research.

Developing national and international consensus on ODS diagnosis and treatment

Dr. Craig's primary goal has been to increase ODS awareness amongst doctors and dental providers. To do this, he has been conducting original research studies to build a stronger evidence foundation, upon which other researchers can further develop. Critical to this process

has been multidisciplinary collaboration to collect data prospectively between him and dental specialists. With this multidisciplinary data, he and his colleagues have published 14 papers on ODS since 2019, covering multiple topics from epidemiology and pathophysiology to diagnosis and treatment. This research led to the development of an international multidisciplinary consensus statement on diagnosing ODS, highlighting the importance of collaboration between otolaryngologists and dental providers for diagnosis. In conjunction with Dr. Alberto Saibene from the University of Milan in Italy, and 15 other ODS experts from the U.S.A., Italy, Germany, Lithuania, France, Israel, Japan and Turkey, the consensus statement was published in the [International Forum of Allergy & Rhinology](#). One simple but important message was that diagnosing ODS generally requires otolaryngologists to confirm the infectious sinusitis, and dental providers to confirm maxillary odontogenic pathology.

Separately, he collaborated with a team of rhinologists and dental specialists from the United States to publish a national consensus statement on optimal dental and sinus surgical treatments for ODS. Notably, patients can expect 90–100% success when appropriate dental and sinus surgical treatments are performed. Some patients may resolve with dental treatment only, but many often require both dental treatment and sinus surgery. Therefore, care can be optimized again through multidisciplinary collaboration between otolaryngologists and dental providers.

The aim for these consensus statements has been to integrate best evidence-to-date with expert opinion to produce a practical approach to recognizing, diagnosing, and treating ODS for both otolaryngologists and dental providers. The hope is that by shining a light on this condition, more patients will benefit from a multidisciplinary approach to management, and more researchers will take an interest in building on the recent body of literature. Eventually, it will be important for ODS to be highlighted more thoroughly in future iterations of sinusitis guidelines. Perhaps equally important, different dental fields need to build awareness of the condition as well.

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Implementing research locally

Increasing awareness nationally and internationally has been valuable, but it is of the utmost importance that patients directly benefit from the most up to date ODS research. For example, if patients present first to otolaryngologists and are miserable from sinusitis, Dr. Craig offers sinus surgery first to resolve their symptoms faster, then helps coordinate appropriate dental treatment shortly thereafter. His team has shown in two studies that upfront sinus surgery followed by dental treatment leads to faster symptom and disease resolution, and overall time to treatment completion. Patients can of course pursue dental treatment first but are educated on the fact that 50% or more fail and still require sinus surgery. Additionally, those who resolve with dental treatment alone often take weeks to months before their symptoms resolve.

Dr. Craig also spreads the word locally and regionally to different medical and dental communities in metro Detroit and Michigan by giving presentations on optimizing diagnostic and therapeutic strategies for ODS.

One final message from Dr. Craig: "When patients present with unilateral infectious sinusitis, search for a dental source, and it's amazing how often you'll find one! Treatment is then the easy part!"



John Craig, M.D., is Division Head of Rhinology, Department of Otolaryngology, and Co-Director of the [Skull Base, Pituitary and Endoscopy Center](#) at Henry Ford Health.

To Request a Consult or Referral to a Henry Ford Health Physician call (877) 434-7470 or [refer a patient online](#). To learn more visit the [ODS web page](#) at Henry Ford Health.





Telehealth and health disparities

by Ilaaf Darrat, M.D.

As a pediatric otolaryngologist who did my residency at Henry Ford Health, I was drawn to the diverse patient population we proudly serve. My interest in improving access to care for the vulnerable and underserved stems in part from my own upbringing. I grew up in a refugee family that was highly educated but could not access health care due to not having insurance. I saw firsthand what it was like to not be able to easily go to the doctor when there was a health issue. Because my mother did not drive on highways our family could not travel at times to see a physician at the health department due to the distance it required to get there.

My interest in closing the gap in health disparities has led to otolaryngology research at Henry Ford with the goal of helping clinicians focus on vulnerable patient populations who require access to specialty medical care.

Telehealth during COVID-19

This research has included socioeconomic disparities involving telehealth during the COVID-19 pandemic. The pandemic required the rapid transition to telehealth with the aim of providing patients with medical access and supporting clinicians while abiding by the stay-at-home orders. Telehealth has provided great convenience for timely efficient health care for many patients/families and providers, however, we aimed to determine demographic and socioeconomic factors that were associated with patient participation in telehealth during the pandemic.

Telehealth research findings

I led a project with Samantha Tam, M.D., MPH, Marwan Boulis, M.D. and Amy M. Williams, PhD to evaluate factors associated with telehealth usage in the Department of Otolaryngology-Head and Neck Surgery at Henry Ford Health. The research published online in *JAMA Otolaryngology-Head & Neck Surgery*, included patients receiving care in the otolaryngology department from March 17 to May 1, 2020. Patients included had scheduled encounters with otolaryngologists or advanced practice clinicians.

Virtual, telephone, and in-person visits as well as no-shows were analyzed. Those who were older, had Medicare insurance, and were in the two lowest quartiles of household income, were less likely to complete a virtual visit compared to telephone or in-person visits before and after adjustment for age, sex, insurance type (including Medicaid, public insurance, and no insurance status), and household income. In univariate analyses

comparing those who completed a virtual or telephone visit to those who were no-shows, those in the lowest two quartiles of median household income, black patients, and patients with Medicaid, no insurance, or other public insurance had a lower likelihood of completing a virtual or telephone visit. Overall, these results indicate the importance of considering variables such as internet access and phone access that can impact patients' participation in telehealth.

Improving access to pediatric ENT care at Henry Ford Health

To dig deeper into this disparity, I am currently working on a project for the Health Equity Scholars Program to determine the causes of the disparity and how to intervene.

Because telehealth is an important component to care in this ever-changing health landscape our virtual care team whom I am working with on this project, have been working with leadership to determine the best methods to provide access to virtual health care for all individuals who would like to access it.

Recognizing families may be challenged to make appointments during normal business hours, Henry Ford offers nontraditional hours and virtual appointments for our pediatric ENT patients including early morning and weekend hours, as well as a telemedicine option. We also offer pediatric ENT specialty care at three locations, Henry Ford Hospital, Henry Ford Medical Center - Fairlane and Henry Ford West Bloomfield Hospital. Additionally, our fellowship-trained specialists have vast experience providing ENT care for special needs children.

Whether it's expanding hours and locations or determining how to remove barriers for telehealth, I am proud to be part of an organization that takes the lead in improving access to care for those that may be more challenged to receive it.

Ilaaf Darrat M.D., MBA is a Pediatric Otolaryngologist, Division Head - Pediatric & General Otolaryngology and Associate Medical Director Revenue Cycle, Henry Ford Health, Site Lead - Otolaryngology Clinic at Henry Ford Medical Center - Fairlane and Plymouth
Clinical Associate Professor of Otolaryngology, Wayne State University School of Medicine

To request a consult or referral to a Henry Ford Health physician call (877) 434-7470 or refer a patient online. To learn more visit [pediatric ENT](#) at Henry Ford Health.

Quick facts

Henry Ford Otolaryngology

- Includes the Divisions of Audiology, Oral & Maxillofacial Surgery and a section of General Hospital Dentistry
- USNWR Top Hospital Ranking 3 years in a row
- Otolaryngology services provided at 5 Henry Ford Health hospitals
- 8 outpatient clinics
- More than 3,500 surgeries annually
- More than 68,000 outpatient visits
- 26 otolaryngologists in the department
- 2 oral & maxillofacial surgeons with recruitment efforts for an additional 2 surgeons
- 1 general hospital dentist with recruitment efforts for an additional dentist
- 23 audiologists, 4 audiology fellows
- 10 advanced practice providers
- 13 otolaryngology residents
- 1 head and neck cancer fellow
- More than \$36M in patient revenue
- Department produced 87 publications in 2020 and 2021
- Approved OMFS residency program to begin AY 2024-2025

Head and Neck Cancer

- In top 10 percentile for time of initiation of postoperative radiation therapy for head and neck cancer patients < 6 weeks.
- 900 surgeries
- Surgery services provided at all 5 Henry Ford Health hospitals
- More than 80 reconstructive cases annually
- 5,800 outpatient visits

Henry Ford Health otolaryngology providers

To request a consult or referral to a Henry Ford Health physician, call (877) 434-7470 or [refer a patient online](#).

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Division Head

Endocrine Surgery



[Michael Singer, M.D.](#)
Division Head

Facial Plastics / Reconstruction



[Robert Deeb, M.D.](#)
Division Head

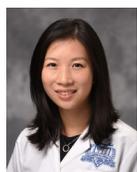


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Department Executive Vice-Chair

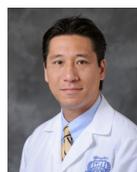


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Head and Neck Cancer Surgery



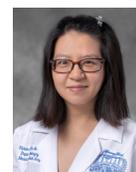
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Division Head



[Steven Chang, M.D.](#)
Department Vice Chair



[Shivangi Lohia, M.D.](#)



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Head And Neck Cancer Surgery / Microvascular Reconstruction



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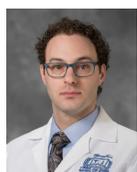


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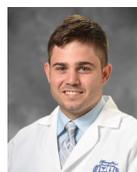


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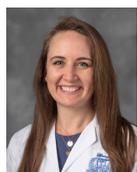
Jaroslaw Buda, C.N.P.



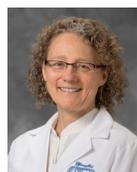
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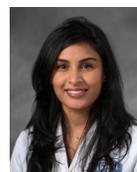
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Sleep Medicine



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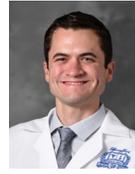
Otolaryngology Residents



Marwan
Boulis, M.D.



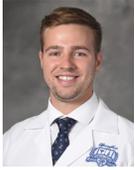
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Cheema, M.D.



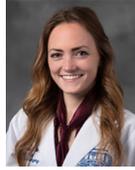
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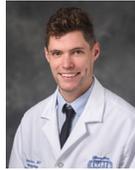
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Grewal, M.D.



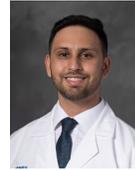
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Okifo, M.D.



Lane
Donaldson, M.D.



Raven
Dunn, M.D.



Japnam
Jassal, M.D.

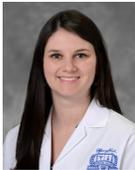


Kyle
Leonard, M.D.



William
Mason, M.D.

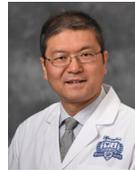
Advanced Practice Practitioners



Rachel
Bollman, M.S.P.A.S.,
P.A.-C.
Lead APP



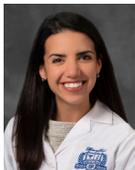
Scott
Boyd, P.A.-C.



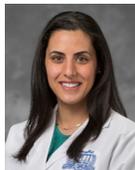
Wei
Gao, M.S.M., P.A.-C.



Michelle
Mardegian, P.A.-C.



Loren
Perlberg,
A.G.A.C.N.P., BC



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A.G.N.P.-C.



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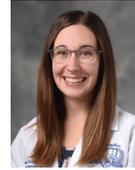
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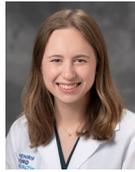
[Samantha Conn, Au.D.](#)



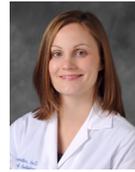
[Chelsea Conrad, Au.D.](#)



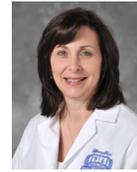
[Ashley Deeb, Au.D.](#)



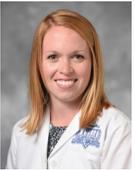
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[Kellie Kornmiller, Au.D.](#)



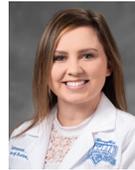
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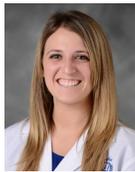
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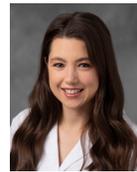
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