

## PRESENTATIONS - PROGRAM AT-A-GLANCE

**Thursday, April 28, 2022**

**Morning Session**

**8:00 am – 12:00 pm CST**

**Landmark Ballroom C**

8:00 am – 8:05 am

**Welcome & Introduction**

Rodney Schlosser, MD, FARS; Sarah Wise, MD, FARS

**Scientific Oral Presentations: Top Rated Abstracts - Session I**

*Moderators: Kara Detwiller, MD, FARS; Charles Ebert, MD, FARS; Jose Mattos, MD*

8:05 am - 8:13 am

**Non-allergic rhinitis and air pollution exposure**

Zechariah Franks, MD

8:14 am – 8:22 am

**A comparative analysis of endoscopic sinus surgery versus biologics**

Amar Miglani, MD

8:23 am – 8:31 am

**Association of cytokine profile with treatment failure and revision sinus surgery in CRS**

Elizabeth Longino, MD

8:32 am – 8:40 am

**Impact of long-acting implantable corticosteroid matrices on SNOT-22 subdomains in CRS patients**

Anders Cervin, MD, PhD

8:41 am – 8:49 am

**Effect of bevacizumab injection on epistaxis in HHT patients undergoing surgical cauterization**

Ashoke Khanwalkar, MD

8:50 am - 8:55 am

**Q&A**

8:55 am - 9:04 am

**Awards Ceremony**

Jean Kim, MD, FARS

9:05 am - 9:45 am

**PANEL: Revisiting the Controversial Role of Fungi in CRS: Examination of Allergic Fungal Rhinosinusitis**

Moderator: Amber Luong, MD, PhD, FARS

Panelists: Amin Javer, MD, FARS; Joshua Levy, MD, FARS;

Matthew Ryan, MD, FARS

*Sponsored by Allergy & Immunology in Rhinology Section*

9:45 am - 10:15 am

**Break with Exhibitors - Marsalis Hall**

**Scientific Oral Presentations: Top Rated Abstracts - Session II**

*Moderators: Naweed Chowdhury, MD; Ashleigh Halderman, MD, FARS; David Jang, MD, FARS*

10:15 am – 10:23 am

**Chronic IL-13 expression in mouse olfactory mucosa results in progressively aneuronal epithelium**

Ani Saraswathula, MD

10:24 am – 10:32 am

**Unsupervised clustering of olfactory phenotypes**

Rodney Schlosser, MD, FARS

10:33 am – 10:41 am

**Olfactory epithelium tropism of SARS-CoV-2 and age-dependent intracranial spread via olfactory axons**

Andrew Lane, MD, FARS

10:42 am – 10:50 am

**Determinants of SARS-CoV-2 entry and replication in airway mucosa and susceptibility in smokers**

Jayakar Nayak, MD, PhD

10:51 am – 10:59 am

**Non-invasive biomarker and artificial intelligence model for differentiation of CRSwNP and CRSsNP**

Sarina Mueller, MD

11:00 am - 11:05 am

**Q&A**

11:05 am - 11:20 am

**TARGETED CONVERSATIONS ON IMPORTANT TOPICS:**

**Humanitarian Efforts in Rhinology**

Moderator: Danielle Warner, MD, FARS

Anthony Del Signore, MD; Rodney Schlosser, MD, FARS

11:20 am – 12:00 pm

**PANEL: Cystic Fibrosis CRS: A New Era**

Moderator: Ashleigh Halderman, MD, FARS

Panelists: Daniel Beswick, MD, FARS; Do-Yeon Cho, MD; David

Gudis, MD, FARS; Stella Lee, MD

*Sponsored by the Pediatric Rhinology Committee*

12:00 pm - 1:00 pm

**Lunch with Exhibitors - Marsalis Hall**

**Thursday, April 28, 2022**  
**Afternoon Session**  
**1:00 pm – 5:00 pm CST**  
**Landmark Ballroom C**

**Scientific Oral Presentations: COVID-19 and Olfaction**

*Moderators: Angela Donaldson, MD, FARS; Nicholas Rowan, MD; Ahmad Sedaghat, MD*

1:00 pm - 1:06 pm  
**Nasal inflammation in COVID-19**  
 Katherine Chang, MD

1:07 pm - 1:13 pm  
**COVID-19 versus CRS/rhinitis associated olfactory dysfunction on health utility and quality of life**  
 Thanh Luong, BS

1:14 pm – 1:20 pm  
**A longitudinal study of olfactory dysfunction and parosmia in mild COVID-19 cases**  
 Aurelia Monk, BA

1:21pm – 1:27 pm  
**Long term olfactory dysfunction in COVID-19**  
 Andy Chua, MBBS

1:28 pm - 1:34 pm  
**Impact of saline irrigations in non-hospitalized patients with COVID-19**  
 Kyle Kimura, MD

1:35 pm - 1:40 pm  
**Q&A**

1:40 pm - 1:55 pm  
**TARGETED CONVERSATIONS ON IMPORTANT TOPICS: Current Treatment for COVID-induced Olfactory Loss**  
 Moderator: Dana Crosby, MD, FARS  
 Carol Yan, MD; Peter Hwang, MD, FARS

1:55 pm - 2:45 pm  
**KEYNOTE SPEAKER: Wayne Sotile, PhD**  
 Title: "Resilience"  
 Combined ARS, ALA, AHNS Session  
 Presented Virtually

2:45 pm - 3:15 pm  
**Break with Exhibitors - Marsalis Hall**

**Scientific Oral Presentations: Sinus Surgery**

*Moderators: Elisabeth Ference, MD, FARS; Marilene Wang, MD, FARS; Zachary Soler, MD, FARS*

3:15 pm – 3:21 pm  
**Development of an endoscopic sinus surgery preoperative checklist with the Delphi method**  
 Stephen Leong, BA

3:22 pm – 3:28 pm  
**Long-duration pain block for postoperative analgesia after sinus surgery**  
 Jessica Bishop, MD

3:29 pm - 3:35 pm  
**3D models to accelerate resident surgical learning curve for endoscopic sinus surgery techniques**  
 Jumah Ahmad, MD

3:36 pm – 3:42 pm  
**Image-guided surgical device failures in functional endoscopic sinus surgery: a MAUDE analysis**  
 Samir Hassanin, BA

3:43 pm - 3:49 pm  
**Ergonomic analysis of hand fatigue in endoscopic sinus surgery**  
 Mason Krynski, MD

3:50pm – 3:56 pm  
**Measurements of foot-pedal reaction time and hand accuracy in seated vs. standing position**  
 Bennett Ahearn

3:57 pm - 4:05 pm  
**Q&A**

4:05 pm - 4:20 pm  
**TARGETED CONVERSATIONS ON IMPORTANT TOPICS: Biologics vs Sinus Surgery: Is it either/or?**  
 Moderator: Jivianne Lee, MD, FARS  
 Kevin Welch, MD, FARS; David Kennedy, MD, FARS

4:20 pm - 5:00 pm  
**PANEL: Ergonomics, Longevity, and Wellness in Sinus and Skull Base Surgery**  
 Moderator: Vijay Ramakrishnan, MD, FARS  
 Panelists: Raewyn Campbell, MD, FARS; Sanjeet Rangarajan, MD, FARS; Renee Witherspoon, Occupational Hygiene and Safety Manager, Research, Campus, and Environmental Safety

5:00 pm - 5:10 pm  
**Business Meeting**

5:30 pm - 7:00 pm  
**ARS President's Welcome Reception - Reunion C**

## Friday, April 29, 2022

### Morning Session

7:00 am – 12:00 pm CST

### Landmark Ballroom C

7:00 am – 8:00 am

#### BREAKFAST SESSION

Guest Speaker: Wayne Sotile, PhD

Title: "The Medical Family"

Presented Virtually

*Sponsored by the Women in Rhinology Section and Diversity & Inclusion Committee*

#### Scientific Oral Presentations: Rhinologic Procedures & Skull Base

*Moderators: Mathew Geltzeiler, MD, FARS; Abtin Tabaee, MD, FARS; Elina Toskala, MD, FARS*

8:00 am – 8:06 am

#### Randomized controlled trial for nasal packing post HHT laser treatment

Justin Pyne, MD

8:07 am – 8:13 am

#### Middle turbinate attachment's relationship with in-office procedure response for vasomotor rhinitis

Omar G. Ahmed, MD

8:14 am – 8:20 am

#### Does septoplasty and inferior turbinate reduction impact exercise capacity? A prospective study

Sei Chung, MD

8:21 am – 8:27 am

#### The incidence of new-onset postoperative diplopia after medial & inferior orbital wall decompression

Tory McKnight, BS

8:28 am – 8:34 am

#### SNOT-22 scores after repair of CSF rhinorrhea

Matthew Liu, BS

8:35am – 8:41 am

#### Transverse venous sinus stenting in idiopathic intracranial hypertension

Peter Filip, MD

8:42 am – 8:50 am

#### Q&A

8:50 am – 9:30 am

#### PANEL: Endoscopic Skull Base Surgery: Considerations Across the Lifespan

Moderator: Stacey Gray, MD, FARS

Panelists: Nithin Adappa, MD, FARS; Roy Casiano, MD, FARS; Uma Ramaswamy, MD; Meghan Wilson, MD

*Sponsored by Skull Base and Orbital Surgery & Women in Rhinology Sections*

9:30 am – 9:45 am

#### TARGETED CONVERSATIONS ON IMPORTANT TOPICS:

##### Managing the Orbit in Invasive Fungal Sinusitis

Moderator: Corinna Levine, MD, FARS

Justin Turner, MD, FARS; Bradford Woodworth, MD, FARS

9:45 am – 10:15 am

#### Break with Exhibitors - Marsalis Hall

#### Scientific Oral Presentations: Systemic Diseases Associated with Rhinologic Conditions

*Moderators: Cecelia Damask, DO; Sonya Marcus, MD; Jeffrey Suh, MD, FARS*

10:15 am – 10:21 am

#### Radiologic improvement in chronic rhinosinusitis in patients with CF treated with CFTR modulators

Tyler Merrill, MD

10:22 am – 10:28 am

#### Correlations between sinus CT and quality of life improvement with CFTR modulator therapy

Jessa Miller, Resident Physician

10:29 am – 10:35 am

#### Cystic fibrosis responders to endoscopic sinus surgery

Ashleigh Halderman, MD, FARS

10:36 am – 10:42 am

#### Cystic fibrosis chronic rhinosinusitis: An evidenced-based review with recommendations

Daniel Spielman, MD

10:43 am – 10:49 am

#### Genetics and olfactory dysfunction in primary ciliary dyskinesia

Zainab Farzal, MD, MPH

10:50 am – 10:56 am

#### Olfactory decline predicts frailty in older US adults with chronic lung disease

Esther Wang, BS

10:57 am – 11:05 am

#### Q&A

11:05 am – 11:20 am

#### TARGETED CONVERSATIONS ON IMPORTANT TOPICS:

##### Social Media in Rhinology

Moderator: Greg Davis, MD, FARS

Zara Patel, MD, FARS; Michael Setzen, MD, FARS

## Scientific Oral Presentations: Pathophysiology and Mechanisms

*Moderators: Esther Kim, MD; Edward Kuan, MD, FARS; Nyall London, MD, FARS*

11:20 am – 11:26 am

**Nitric oxide generating microparticles: anti-biofilm efficacy and sinonasal epithelial cell toxicity**

Kevin Li, MD

11:27 am – 11:33 am

**Denatonium-responsive bitter receptors and AERD**

Jennifer Douglas, MD

11:34 am – 11:40 am

**Succinate activates solitary chemosensory cells (SCCs) in the nose**

Elizabeth Sell, Medical Student

11:41 am – 11:47 am

**Pseudomonas biofilms in patients with chronic rhinosinusitis**

Sarah Khalife, MD

11:48 am – 11:54 am

**In-vitro release of triamcinolone acetonide from saturated sinus dressings**

Do-Yeon Cho, MD

11:55 am - 12:00 pm

**Q&A**

12:00

**Meeting Adjourns**

## Friday, April 29, 2022 Morning Breakout Session 8:00 am – 12:00 pm CST Reunion Ballroom C

## Scientific Oral Presentations: Patient Perceptions and Social Determinants

*Moderators: Edward McCoul, MD, FARS; Theodore Schuman, MD, FARS; Zara Patel, MD, FARS*

8:00 am – 8:06 am

**Sinonasal outcomes in patients treated for AERD**

Glen D'Souza, MD

8:07 am - 8:13 am

**Quality of life in CRS patients treated with long-acting implantable corticosteroid matrices**

Anders Cervin, MD, PhD

8:14 am - 8:20 am

**I got sinus - what do we mean when we have a 'sinus infection'?**

Edward McCoul, MD, FARS

8:21 am – 8:27 am

**The rising cost of rhinological medications: a NADAC analysis**

Milind Vasudev, BS

8:28 am – 8:34 am

**Health literacy in rhinology patients**

Abdullah Zeatoun, MD

8:35 am – 8:41 am

**Impact of social determinants of health on access to rhinology care and patient outcomes**

Esther Wang, BS

8:42 am - 8:50 am

**Q&A**

8:50 am - 9:10 am

**A CONVERSATION WITH THE EDITOR-IN-CHIEF: Preparing a Publishable Paper**

Lauren Roland, MD; Timothy Smith, MD, FARS

9:10 am - 9:30 am

**TIPS FROM THE EXPERTS: Starting a Career as a Surgeon-Scientist**

Moderator: Victoria Lee, MD

Panelists: Noam Cohen, MD, FARS; Andrew Lane, MD, FARS

9:30 am - 9:45 am

**TARGETED CONVERSATIONS ON IMPORTANT TOPICS: Odontogenic Sinusitis**

Moderator: Angela Donaldson, MD, FARS

Panelists: John Craig, MD, FARS; Todd Kingdom, MD, FARS

9:45 am - 10:15 am

**Break with Exhibitors - Marsalis Hall**

## Scientific Oral Presentations: Pathophysiology and Mechanisms

*Moderators: Mark Arnold, MD; Philip Chen, MD, FARS; Mindy Rabinowitz, MD, FARS*

10:15 am – 10:21 am

**Is there a correlation between radiographic and histologic findings in rhinosinusitis?**

Do-Yeon Cho, MD

10:22 am – 10:28 am

**Site-specific detection and differential expression of inflammatory markers in the sinonasal mucosa**

Wesley Stepp, MD, PhD

10:29 am – 10:35 am

**Association between specific endotypes and the presence of discharge or edema after ESS for CRS**

Eli Stein, Medical Student

10:36 am – 10:42 am

**Histopathologic differences in adult and pediatric patients with chronic rhinosinusitis**

Sarah Khalife, MD

10:43 am - 10:49 am

**Tissue eosinophilia is a superior metric compared to polyp status for RNA sequencing in CRS tissue**

Tripti Kaur Brar, MBBS, MD

10:50 am – 10:56 am

**HIF1-alpha regulates human nasal epithelial cell growth in nasal polyposis**

Austin Mattox, Medical Student

10:57 am – 11:05 am

**Q&A**

11:05 am – 11:19 am

**TARGETED CONVERSATIONS ON IMPORTANT TOPICS: Standard of Care in Extended Frontal Sinus Surgery: Does Anyone Learn Osteoplastic Flaps Anymore?**

Moderator: Raj Sindwani, MD, FARS

Panelists: Stacey Gray, MD, FARS; James Palmer, MD, FARS

**Scientific Oral Presentations: Symptom and QOL Measures in Rhinologic Conditions**

*Moderators: Naveen Bhandarkar, MD, FARS; Garret Choby, MD, FARS; Stephanie Joe, MD, FARS*

11:20 am – 11:26 am

**Sham-controlled trial of a novel device for the treatment of viral upper respiratory tract infection**

Thomas Edwards, MD

11:27 am - 11:33 am

**Eustachian tube dysfunction (ETD) in chronic rhinosinusitis with comparison to primary ETD**

Tiffany Chen, Clinical Research Fellow

11:34 am – 11:40 am

**CRS in asthma is not associated with worse Asthma Control Test responses**

Amarbir Gill, MD

11:41 am – 11:47 am

**Correlations between three validated olfactory tests**

Michael Shih, BS

11:48 am – 11:54 am

**Drug-induced olfactory and gustatory dysfunction**

Peter Debbaneh, MD

11:55 am - 12:00 pm

**Q&A**

12:00 pm

**Meeting Adjourns**

## Posters

### 1st Combined Group

**ARS, AAFPRS, AHNS, ALA (Marsalis Hall)**

### Wednesday, April 27

**Poster Viewing: 1:00 pm – 7:00 pm**

**Meet the Authors: 5:30 pm – 6:00 pm**

### Thursday, April 28

**Poster Viewing: 9:00 am – 7:00 pm**

**Meet the Authors: 5:30 pm – 6:00 pm**

Poster C001

**A population-based analysis of nodal and distant metastases in sinonasal adenoid cystic carcinoma**

Jack Birkenbeuel, BS

University of California, Irvine

Poster C002

**Advances in 3D printing for patient specific sinus and skull base surgery**

Ricardo Pulido, MD

Poster C003

**An objective evaluation of popular nasal irrigation systems**

Garret Berk, BS

Poster C004

**Antibiotic irrigations for acute on chronic rhinosinusitis in patients with identical drug allergies**

Jessa Miller, MD

UCLA

Poster C005

**AROMA: Real-world global registry to assess long-term outcomes of Dupilumab treatment in CRSwNP**

Adam Chaker

Technical University of Munich

Poster C006

**Assessing the efficacy of sclerotherapy in patients with hereditary hemorrhagic telangiectasia**

Anna Jenkins, Medical Student

Mayo Clinic School Alix of Medicine

Poster C007

**Association between hypoalbuminemia and postoperative outcomes of pituitary tumor resection**

Sree Chinta

Poster C008

**Association of frailty with surgical outcomes with transoral approach to the cervical spine**

Mehdi Lemdani, BA

Rutgers New Jersey Medical School



Poster C009

**Chronic rhinosinusitis and sickness behavior: Cytokine profile systematic review**

Wasiq Nadeem, BS  
UT Health San Antonio

Poster C010

**Chronic rhinosinusitis and statins**

Mustafa Bulbul, MD, MPH

Poster C011

**Combined endoscopic sinus surgery and septal perforation repair: SNOT-22 outcomes and closure rates**

Tripti Kaur Brar, MBBS, MD  
Mayo Clinic, Arizona

Poster C012

**Comorbid psychological and pain diagnoses in the pauc-inflammatory endotype of CRS**

Alex Labby, MD  
Vanderbilt University Medical Center

Poster C013

**Comparison of endoscopic polyp grading scales**

Seth Jeong, BA

Poster C014

**Complicated sinusitis secondary to streptococcus intermedius: A pediatric case series**

Alexander Duffy, MD  
Thomas Jefferson University Hospital

Poster C015

**Composite reverse septal flap for nasal tip support after subtotal septectomy**

Kody Bolk, MD  
LSUHSC

Poster C016

**WITHDRAWN**

Poster C017

**CRS cognitive impairment review**

Hannan Qureshi, MD  
University of Washington

Poster C018

**Diabetes mellitus and clinical outcomes following epistaxis treatment**

Avneet Randhawa, BS  
Rutgers University New Jersey Medical School

Poster C019

**Diets in asthma and AERD**

Marie Lundberg, MD, PhD

Poster C020

**Does lumbar drain affect outcomes for endonasal resection of pituitary neoplasms?**

Benjamin Bitner, MD  
University of California Irvine Medical Center

Poster C021

**Does understanding expectations improve patient satisfaction and communication in rhinology**

Eric Du, BS  
UC San Diego

Poster C022

**Dopamine reward and olfaction**

Eve Champaloux, MD, PhD  
University of Washington

Poster C023

**Effect of chronic obstructive pulmonary disease on endoscopic sinus surgery**

Christopher Pettit

Poster C024

**Effect of hypertension in transsphenoidal surgery outcomes**

Avneet Randhawa, BS  
Rutgers University New Jersey Medical School

Poster C025

**Effect of obesity following inpatient epistaxis treatment**

Avneet Randhawa, BS  
Rutgers University New Jersey Medical School

Poster C026

**Effect of weight loss on chronic rhinosinusitis**

Vraj P. Shah, BS  
Rutgers New Jersey Medical School

Poster C027

**Effects of midvault repair techniques on nasal drug delivery**

Raluca Gosman, BS

Poster C028

**Endoscopic endonasal approach to intraconal malignant tumor of the orbit**

Dhruv Sharma, MD  
Indiana University

Poster C029

**Endoscopic repair of iatrogenic carotid artery injury using a lateral tongue muscle patch**

Nikita Chapurin, MD, MHS  
Vanderbilt University Medical Center

Poster C030

**Evaluating distance bias in chronic rhinosinusitis outcomes**

Amarbir Gill, MD  
University of Utah

Poster C031

**Evaluating opioid prescriptions after functional endoscopic sinus surgery (FESS) and/or septoplasty**

Landon Larabee, BS

Poster C032

**Extra-nasopharyngeal angiofibromas: Case report and literature review**

Elizabeth Jee, MD  
Louisiana State University

Poster C033

**WITHDRAWN**

Poster C034

**Frailty predicts worse survival in sinonasal squamous cell carcinoma**

Rijul Kshirsagar, MD  
University of Pennsylvania

Poster C035

**Frailty status and dietary patterns in adults with olfactory dysfunction**

Nicholas Rowan, MD  
Johns Hopkins University Medical Center

Poster C036

**Frailty status and perioperative outcomes in sinonasal tumors**

Nicholas Rowan, MD  
Johns Hopkins University Medical Center

Poster C037

**Free mucosal grafting and bioabsorbable steroid-eluting stents in skull base surgery**

Ashutosh Kacker, MD  
WCMC

Poster C038

**Granulomatosis with polyangiitis and invasive fungal sinusitis**

Isabelle Gengler, MD  
University of Cincinnati

Poster C039

**Head position for drug delivery to OMC and MS in patients with CRS**

Carson Popper, Medical Student

Poster C040

**Histopathologic characterization of pediatric chronic rhinosinusitis**

Hannah Brown, BS  
Rush Medical College, Rush University Medical Center

Poster C041

**Hypoalbuminemia and open anterior skull base surgery**

Rushi Patel, BA  
Rutgers New Jersey Medical School

Poster C042

**IIH related CSF rhinorrhea leaking through an ecchordosis physaliphora**

Mackenzie Noonan

Poster C043

**Image guided obturator design and fabrication for maxillectomy defect in the case of IFS**

John Lally, MD  
US ARMY

Poster C044

**Impact of a combination CFTR modulator on mucosal inflammation in CF patients**

Neil Patel, MD, MSc  
University of California San Francisco

Poster C045

**Impact of combination surgery and radiation therapy on survival in esthesioneuroblastoma**

Ryan Jin, BS  
Rutgers New Jersey Medical School, Newark, NJ

Poster C046

**Impact of delay in treatment on survival in sinonasal undifferentiated carcinoma**

Anas Qatanani, BS

Poster C047

**Impact of Dupilumab on sleep/function scores in patients with CRSwNP**

William Busse  
University of Wisconsin

Poster C048

**WITHDRAWN**

Poster C049

**Improvement in 'taste', and association with smell with Dupilumab-treated patients in CRSwNP**

Anju T. Peters, Professor  
Northwestern University

Poster C050

**Improvement in rhinologic symptoms and quality of life in CF patients undergoing combination therapy**

Jeremy Tervo, Medical Student  
Columbia University Vagelos College of Physicians & Surgeons

Poster C051

**Incidence of invasive fungal sinusitis prior to and during the COVID-19 pandemic**

Maggie Donovan, Medical Student  
University of Arizona College of Medicine – Phoenix

Poster C052

**Income disparities in chronic rhinosinusitis management**

Vraj P. Shah, BS  
Rutgers New Jersey Medical School

Poster C053

**Infratemporal fossa mature teratoma in a pediatric patient: A case report**

Keonho Kong, MD  
University of North Carolina

Poster C054

**Internet search for balloon sinuplasty**

Vivek Pandrangi, MD  
Oregon Health & Science University

Poster C055

**Inverted papilloma during pregnancy: A case report**

Antonella Loperfido, MD  
San Camillo Forlanini Hospital  
Rome, Italy

Poster C056

**Management of acute sinusitis with orbital complications: A systematic review**

Anusha Sherwani  
Long School of Medicine

Poster C057

**Management of intracranial complications of acute sinusitis: A systematic review**

Leslie Kim  
Long School of Medicine

Poster C058

**WITHDRAWN**

Poster C059

**Metabolic syndrome and skull base surgery**

Khodayar Goshtasbi, MS, MD  
University of California Irvine School of Medicine

Poster C060

**Monoclonal antibodies and chronic rhinosinusitis with nasal polyps: Our multidisciplinary experience**

Antonella Loperfido, MD  
San Camillo Forlanini Hospital, Rome, Italy

Poster C061

**Multi-institutional review of sinonasal and skull base chondrosarcoma: A 20-year experience**

Jacob G. Eide, MD  
University of Pennsylvania

Poster C062

**Nasal septal perforations of unknown etiology**

Travis Haller, MD  
Mayo Clinic

Poster C063

**Nasal swell body characteristics in patients with septal perforations**

Daniela Brake, MD  
Mayo Clinic Arizona

Poster C064

**Nasopharyngeal depth and facial anthropometry: A normative analysis**

Alexander Dickie, MD  
University of Western Ontario

Poster C065

**ODS management duration**

Abdulkader Yassin-Kassab, MD  
University of Pittsburgh Medical Center

Poster C066

**Orbital pseudotumor associated with CRS and fungus ball responsive to antifungals**

Emma West, MD  
VCU Health System

Poster C067

**Pain control with sphenopalatine ganglion block after endoscopic sinus surgery**

Neelam Phalke, MD

Poster C068

**Parosmia and COVID-19: An evidence-based review with recommendations for the clinician**

Joseph Gary  
Vagelos College of Physicians & Surgeons at Columbia University

Poster C069

**Patient risk factor analysis for procedural intervention in management of epistaxis**

Rachel Kearn, DO  
SUNY Upstate Medical University

Poster C070

**Patient safety indicator events vs. insurance type in transsphenoidal pituitary surgery patients**

Keshav Kumar, MPH

Poster C071

**Patient volume and online ratings for academic rhinologists in the United States**

Kelsey Roman, BS  
University of California, Irvine

Poster C072

**Patterns of care for elderly patients with sinonasal undifferentiated carcinoma**

Christopher Didzbalis, BA  
Rutgers New Jersey Medical School, Newark, NJ

Poster C073

**WITHDRAWN**

Poster C074

**Postoperative impact of delay in surgery in patients undergoing ventral skull base surgery**

Mehdi Lemdani, BA  
Rutgers New Jersey Medical School



Poster C075

**Postoperative impact of transfer status for patients undergoing ventral skull base surgery**

Mehdi Lemdani, BA  
Rutgers New Jersey Medical School

Poster C076

**Postoperative sinonasal infection following endoscopic skull base surgery**

Dean Chung, BA

Poster C077

**Pott's puffy tumor: A review of the literature**

Rebecca Rohde, MD, MPH

Poster C078

**Prevalence of type 2 inflammatory signatures in patients with CRSwNP from 2 phase 3 clinical trials**

Claus Bachert, MD  
Ghent University

Poster C079

**Primary ciliary dyskinesia: a case of misdiagnosis and an update on diagnostic tools**

Adam Kimple, MD, PhD, FARS  
University of North Carolina

Poster C080

**Prophylactic antibiotics and septoplasty**

Marie Lundberg, MD, PhD

Poster C081

**Quantifying ethmoid sinus dimensions with relevance to skull base injury in endoscopic sinus surgery**

Michael Chang, MD  
Stanford University

Poster C082

**Rates of antidepressant, anxiolytic, and ADHD medication use among patients undergoing ESS**

Alan Workman, MD, MTR

Poster C083

**Rationale and design for EDS-FLU trials in CRS without and with nasal polyps**

James N. Palmer, MD, FARS  
University of Pennsylvania

Poster C084

**Real world use of Dupilumab for nasal polyposis**

Isaac Schmale, MD  
University of Rochester Medical Center

Poster C085

**Real-world persistence and adherence in subcutaneous allergen immunotherapy: A systematic review**

Michelle Park, MD Candidate  
Johns Hopkins University School of Medicine

Poster C086

**Reconstruction of oroantral fistulas**

Nrusheel Kattar, MD  
LSU-Health Sciences Center

Poster C087

**Resilience and symptom severity in patients with sinonasal complaints**

James Kim, MD  
Keck School of Medicine University of Southern California

Poster C088

**Retrolbulbar amphotericin B in the treatment of invasive fungal sinusitis with orbital involvement**

Ashley Kraft, MD  
LSUHSC NO

Poster C089

**Review of the association between olfactory dysfunction and idiopathic intracranial hypertension**

Sriram Navuluri, MD

Poster C090

**Rhinosinusitis-related complications in transplant recipient**

Estephania Candelo, MD, MSc  
Mayo Clinic

Poster C091

**WITHDRAWN**

Poster C092

**SNOT-22 scores in CSF rhinorrhea**

Matthew Liu, BS  
UT Austin - Dell Medical School

Poster C093

**Spontaneous nasal septal abscess of odontogenic origin**

Alexis Lakatta, BSA  
University of Texas Medical Branch

Poster C094

**WITHDRAWN**

Poster C095

**Symptom severity in primary English and non-English-speaking patients with sinonasal complaints**

Francis Reyes Orozco, BA  
Keck School of Medicine University of Southern California

Poster C096

**Systematic review of preoperative embolization in juvenile nasopharyngeal angiofibroma removal**

Ashley Diaz, BS

Poster C097

**Temporality and the relationship between radiographic and patient reported outcome severity in CRS**

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Poster C098

**The anatomy of revision sinus surgery**

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Poster C099

**The predictive utility of SNOT-22**

Matthew Liu, BS

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Poster C100

**The weekend effect in transsphenoidal pituitary surgery: A national analysis**

Vraj P. Shah, BS

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**Transorbital management of incidental intracranial mass in a patient with AERD and nasal polyposis**

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**Transsphenoidal pituitary surgery patients in the ICU**

Rushi Patel, BA

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Poster C103

**Treatment of skull base osteomyelitis**

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**Understanding the pathophysiology of olfactory dysfunction in cleft lip nasal deformity**

Sarah Russel, MD

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**WITHDRAWN**

Poster C106

**Variation in computed tomography opacification in sinus disease: A snapshot in time**

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**Virtual care versus in-person assessment: patient satisfaction at the otolaryngology clinic**

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Poster C108

**YouTube rhinosinusitis video characteristics vary based on the search term used**

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