

Rusha Patel, M.D

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Academic Appointments

Oklahoma University – Oklahoma City, OK

Associate Professor, License Number: 37778

2021 - Present

West Virginia University – Morgantown, WV

Assistant Professor, License Number: 26753

2015 - 2021

Education

Medical University of South Carolina, Charleston, SC: Fellow, Head and Neck/Microvascular Surgery

2014-2015

University of Utah Hospital, Salt Lake City, UT: Resident, Department of Otolaryngology

2009-2014

University of Michigan, Ann Arbor, MI: M.D, Medicine

2005-2009

University of Michigan, Ann Arbor, MI: B.S, Mechanical Engineering

2001-2005

Hospital Leadership

Medical Director, Stephenson Cancer Center Head and Neck Clinic – 2021 – Present: coordinate with clinic team to provide efficient and effective patient care for head and neck cancer patients seen at the cancer center.

Director of Head and Neck Research – 2021 – Present: Organize quarterly research activities within the Department of Otolaryngology. Actively assist in publication efforts among faculty. Design and organize multidisciplinary research activities with radiation oncology, medical oncology, pathology, dermatology, and other associated service lines.

Fellowship Program Director – 2021 – Present: Develop curriculum for the OU head and neck fellowship. Organize rotation schedules, participate in teaching and mentorship, and guide the fellow through clinical and research efforts during their time in training.

WVU Program Evaluation Committee (chair) – 2019 – 2020: Plan, develop, implement, and evaluate educational activities of the residency program.

WVU Resident Wellness Committee (chair) - 2018 – 2020: Develop and implement wellness measures for the resident program.

WVU Small Grants Review Committee – 2017 – 2021: Critically evaluate and review institutional grants submitted for the small grants program using NIH criteria.

WVU Ultrasound Development Committee – 2017 – 2021: Collaborate with medical and surgical departments to implement standards of care and practice for point of care ultrasound use at Ruby Memorial Hospital.

National Leadership

AAOHNS Credentials Committee – 2023 – present: Collaborate on efforts to support recruitment and membership to the AAOHNS.

AHNS Global Outreach Committee – 2023 – present: Support efforts for international collaboration among head and neck surgeons.

ABOto Question Writer – 2022 – present: Develop content for continuing education.

AHNS Mentorship Committee – 2019 – present: Collaborate with senior members to increase microvascular surgeon retention. Implemented a virtual mentorship program for early microvascular surgeons.

AHNS Curriculum Development & Maintenance Service – 2019-present: Write, review, and design content for microvascular fellowship education, including case-based scenarios and surgical videos. Designed and lead reconstructive virtual tumor boards for AHNS Fellows through 2021.

AAOHNS Microvascular Committee Chair – 10/2022 – 10/2023: Lead the AAOHNS microvascular committee in efforts at academy presentations, collaboration, and research.

AHNS Patient and Public Education Committee – 2018 – 2021: Review content submitted by the sections for patient education publication.

AHNS Reconstructive Committee – 2017 – present: Participated in a multi-institution study on outcomes after laryngectomy reconstruction.

AHNS Website Committee – 2019 – 2020: Liaison with subcommittees to design website content. Currently working with Endocrine section on website development.

Awards and Honors

Vice Present Awards – Nominee, Outstanding Achievement in Service	2018
Bravo! Award – Top 2% of inpatient clinical providers based on patient feedback	2017
Resident – In-Service Award (Top 10% In-Service Score)	2010-2012
Dean’s List, University of Michigan	2001-2004
University Honors, University of Michigan	2001-2004
Undergraduate Research Opportunities Program – Biomedical Engineering Research Fellowship, University of Michigan	2003

Grants

American College of Surgeons – Institutional Research Grant - 09/2018 - present

Awarded a grant to study ⁶⁸Ga-DOTATATE imaging in head and neck cancer patients.

West Virginia University Clinical and Translational Science Institute Grant - 09/2018 – present

Awarded a grant to study ^{68}Ga -DOTATATE imaging in head and neck cancer patients.

Innovations in Teaching Grant – Medical University of South Carolina – 2014-2015

Awarded funding to design and validate a cost-effective surgical simulation model to teach intraoral suturing skills to resident physicians.

Clinical Trials**A Comparison of ^{68}Ga -DOTATATE (NETSPOT) Imaging versus ^{18}F -FDG-PET/CT in Head and Neck Cancer Patients (NCT03602911) - Principal Investigator – 2018 - 2021**

Investigator-initiated trial to study the novel use of octreotide-based imaging in detecting head and neck cancer, as compared to standard imaging modalities.

DB-020-002 - Phase 1b Randomized, Double-blind, Placebo-Controlled, Multi-center Study to Evaluate the Safety, Tolerability, Pharmacokinetics, and Pharmacodynamics of Repeated Doses of DB-020 in Patients Receiving Cisplatin – Principal Investigator – 2020-2021**Research Presentations**

- Mnajjed, L, **Patel R**: use of ChatGPT in Patient Education – AAOHNS Meeting – Nashville, TN 10/2023
- Mnajjed, L, **Patel, R**: Vaccine Hesitancy Among Oropharyngeal Cancer Patients Towards HPV versus COVID19 Vaccine – AHNS International Meeting – Montreal, Canada 06/2023
- **Patel R**, et al. Sarcopenia, Cachexia, and Inflammation as Predictors of Outcomes in Laryngectomy Patients. – AHNS International Meeting – Montreal, Canada 06/2023
- **Patel, R**, McMullen, C, Kejner, A – Text-Based Mentorship in Head and Neck Surgery – COSM – Dallas, TX 04/2022
- **Patel R**, Marano G, et al. ^{68}Ga -DOTATATE Imaging versus Fludeoxyglucose Positron Emission Tomography (FDG-PET/CT) in Oropharyngeal Cancer Patients – Multidisciplinary Head and Neck Cancer Symposium – Scottsdale, AZ. 02/2020
- Russell, BS, **Patel, R** Association of Post-Operative Thrombocytosis and Post-Operative Complications in Head and Neck Cancer Patients Undergoing Free Tissue Reconstruction – American Head and Neck Society (AHNS) – Austin, TX 04/2019
- McCulloch, I, Montague, A, **Patel, R**. Techniques and Outcomes of the Temporoparietal Fascia Flap (TPFF) in Reconstruction of Cutaneous Malignancy Defects: A Literature Review – American Facial Plastic and Reconstructive Surgery (AFPRS) – Baltimore, MD 04/2018
- Buchanan, T, Zalzal, H, **Patel, R**, McChesney, J. An Unusual Case of Persistent Dysphagia. American Broncho-esophological Association (ABEA) – Baltimore, MD 04/2018
- Stokes, W, **Patel R**. Functional Outcomes of Non-Surgical Treatment for Early Stage Laryngeal Cancer – American Head and Neck Society (AHNS) - Baltimore, MD 04/2018

- Lingual Thyroid Carcinoma a Case Report and Review of Surgical Approaches in the Literature. Stokes, W, **Patel R**, American Head and Neck Society (AHNS), San Diego, CA 04/2017
- A Case of Indolent Sinonasal Melanoma In The Setting Of Atypical Pigmentation. Addicks, B, **Patel, R**, American Rhinologic Society – San Diego, CA 04/2017
- Honsinger K, **Patel R**. Removal of a Parapharyngeal Foreign Body Using Imagine Guidance. American Society of Pediatric Otolaryngologists (ASPO) 05/2016
- **Patel, R**, Taylor, R, Hand, W et al. Intraoperative Vasopressor Use in Soft Tissue versus Osteocutaneous Free Flap Reconstruction: A Randomized Trial. American Head and Neck Society (AHNS) 04/2015
- **Patel, R**, Orlandi, RO Fungal Septal Abscess in an Immunocompromised Patient American Rhinologic Society (ARS) Annual Meeting – Las Vegas, NV 05/2014
- **Patel, R**, Hunt, JP Predicting Single- versus Four-Gland Disease in Normohormonal Patients with Primary Hyperparathyroidism. American Academy of Otolaryngology (AHNS)– Vancouver, B.C 09/2013
- **Patel, R**, Uchida D, Feola GP, Meier JD. Bronchial Artery Pseudoaneurysm as an Unusual Case of Hemoptysis in a Pediatric Patient. American Broncho-Esophageal Association (ABEA) Annual Meeting – Orlando, FL 04/2013
- **Patel, R**, Mobley SR. A Ten Year Objective Assessment of Safety and Outcomes of Silastic - Augmentation Mentoplasty. Triologic Society Combined Sections Annual Meeting – Scottsdale, AZ 01/2013
- **Patel, R**, Meier JM, Muntz H. Predictors in Management of Pediatric Neck Abscess. - The Society for Ear, Nose and Throat Advances in Children (SENTAC) Annual Meeting – Charleston, SC 11/2012
- **Patel R**, Wang Y, Park A. Development of a Murine Model of CMV-Induced Hearing Loss., American Academy of Otolaryngology – Head and Neck Surgery Annual Meeting – Washington, D.C 09/2012
- **Patel R**, Buchmann LO, Hunt JP. Use of the Temporoparietal Fascial Flap in Skull Base Reconstruction. American Academy of Otolaryngology – Head and Neck Surgery Annual Meeting – San Francisco, CA 09/2011

Publications

- **Sajisevi M et al, Patel R. Oncologic Safety of Close Margins in Patients with Low- to Intermediate-Grade Major Salivary Gland Carcinoma. JAMA Otolaryngol Head Neck Surg. 2023 Dec 14 doi: 10.1001/jamaoto.2023.2952**
- **Rao SM, Knott PD, Sweeny L, Domack A, Tang A, Patel R et al: Microvascular Free Flap Outcomes in Maxillectomy Defects from Invasive Fungal Sinusitis Laryngoscope. 2023 Sept 29. Doi: 10.1002/pary.31081**
- **Patel R. Surgery for Supraglottic Laryngeal Cancer. Otolaryngol Clin North Am. 2023 Apr;56(2):295-303**
- **Patel R. Reducing morbidity in radial forearm free flap donor site: a review of closure techniques. Curr Opin Otolaryngol Head Neck Surg. 2022 Oct 1;30(5):363-367.**

- **Patel R**, Stokes WA, Roberts C, Chung J, Fancy T, Wen S, Gao S. Preoperative low-molecular weight heparin chemoprophylaxis in head and neck free flap reconstruction. *Am J Otolaryngol*. 2023 Mar-Apr;44(2):103722.
- Kejner AE, Harris BN, **Patel R**, McMullen C, Weir J, Dahshan BA, Carroll WR, Gillespie MB. Management of the parotid for high-risk cutaneous squamous cell carcinoma: A review from the salivary section of the American Head and Neck Society. *Am J Otolaryngol*. 2022 Mar-Apr;43(2):103374
- Cleveland C, Newby M, Steinman S, Wanstreet T, Callaham S, Razdan R, Coutras S, **Patel R**, Carr MM. Depression and Intolerance of Uncertainty: Association with Decisional Conflict in Otolaryngology Patients. *Ann Otol Rhinol Laryngol*. 2022 Mar;131(3):252-258
- Kejner AE, **Patel R**, McMullen C, Sykes KJ, Shnayder Y. Burnout in microvascular reconstructive otolaryngology - head and neck surgeons: Potential modifiable workplace factors. *Head Neck*. 2021 Nov;43(11):3522-3529.
- Harris BN, **Patel R**, Kejner A, Russell B, Ramadan J, Bewley A. Thrombocytosis Predicts Surgical Site Infection in Head and Neck Microvascular Surgery- A Pilot Study. *Laryngoscope*. 2021 Jul;131(7):1542-1547.
- **Patel R**, Kejner A, McMullen C. Problematic Reporting of Gender Differences in Clinical Productivity Among Otolaryngologists. *JAMA Otolaryngol Head Neck Surg*. 2021 Feb 1;147(2):221-222
- Taylor RJ, **Patel R**, Wolf BJ, Stoll WD, Hornig JD, Skoner JM, Hand WR, Day TA. Intraoperative vasopressors in head and neck free flap reconstruction. *Microsurgery*. 2021 Jan;41(1):5-13
- Yuen E, Fote G, Horwich P, **Patel R**, et al. Head and neck cancer care in the COVID-19 pandemic: A brief update. *Oral Oncol*. 2020 Jun;105:104738.
- **Patel R**, Kejner, A, McMullin, C. Early Institutional Head and Neck Oncologic and Microvascular Surgery Practice Patterns Across the United States During the SARS-CoV-2 (COVID19) Pandemic. *Head & Neck*. 2020 Jun;42(6):1168-1172.
- Zalzal H, Buchanan T, **Patel R**, McChesney, J. An Unusual Case of Dysphagia. *Ear Nose Throat J*. 2018 Dec;97(12):391
- Stokes, W, Interval, E **Patel R**. Lingual Thyroid Cancer: A Case Report and Review of Surgical Management. *Ann Otol Rhinol Laryngol*. 2018 Jul;127(7):475-480
- **Patel R**, Orlandi, RO. Fungal Septal Abscess Complicating Maxillary Sinus Fungal Ball in an Immunocompetent Host. *Allergy Rhinol (Providence)*. 2015 Jan;6(3):184-7
- **Patel R**, Uchida D, Feola GP, Meier JD. Bronchial Artery Pseudoaneurysm as an Unsuspected Cause of Hemoptysis in a Pediatric Patient. *Annals of Otolaryngology, Rhinology and Laryngology*. 2014 March 17; 123(8): 591595.
- Yong, W, **Patel R**, Ren C, Taggert, M, Firpo M, Schleiss, M, Park A. Development of a Murine Model for Cytomegalovirus Induced Sensorineural Hearing Loss – A Comparison of Different Inoculation Techniques. *Laryngoscope* 2013 Nov; 123(11): 2801-6
- **Patel R**, Buchmann, LO, Hunt, J. The Use of the Temporoparietal Fascial Flap in Preventing CSF Leak After Lateral Skull Base Surgery. *Journal of Neurological Surgery: Skull Base* 2013 Oct; 74(5): 311-6
- Luong LN, Hong SI, **Patel RJ**, Outslay ME, Kohn DH. Spatial Control of Protein within Biomimetically Nucleated Mineral. *Biomaterials*, 2006 Mar; 27(7):1175-86

Book Chapters

Patel R., Militsakh O., Goddard J., Ryan J., Rumboldt Z., Neville B., Sharma A., Gillespie B., Skoner J., Lentsch E., Hornig J., Day T.: Salivary Gland Malignancies. In: Schwab M. (Ed.) *Encyclopedia of Cancer*: SpringerReference (www.springerreference.com). Springer-Verlag Berlin Heidelberg, 2015. 2014-10-05 12:24:36 UTC R.

Patel R, Quimby A: Medical Optimization. In: Complex Head and Neck Microvascular Surgery – Comprehensive Management and Perioperative Care. Springer Cham 2023

Strohl MP, **Patel R, Nicolli E: Flap Monitoring** In: Complex Head and Neck Microvascular Surgery – Comprehensive Management and Perioperative Care. Springer Cham 2023

Baranskaya I, Funk-Lawler, R, Hilton B, **Patel R: Mental Health.** In: Complex Head and Neck Microvascular Surgery – Comprehensive Management and Perioperative Care. Springer Cham 2023

Podium and Panel Presentations

Flap Revision: What Works and What Doesn't – AAFPRS, Las Vegas, NV – *Speaker* 10/2023

The Argument for Parental Leave – AAFPRS, Las Vegas, NV – *Speaker* 10/2023

Big Whack Flap Debate – AAOHNS, Nashville, TN – *Speaker* 10/2023

HPV: Is it in your DNA? – AAOHNS, Nashville, TN – *Speaker* 10/2023

Updates in the Management of Osteoradionecrosis – AHNS, Montreal, Canada – *Speaker* 06/2023

Sketchy Micro Situations – AAFPRS - *Moderator* 10/2022

Stump the Experts: Complex Cases in Head and Neck Microvascular Reconstruction – AAFPRS – *Panelist* 10/2022

HPV: Is it in your DNA? – AAOHNS, Philadelphia, PA – *Speaker* 09/2022

Non-Surgical Management of Complex Head and Neck Oncologic Wounds – AAOHNS, Philadelphia, PA – *Moderator* 09/2022

Gender-Neutral Parental Leave Practices in Head and Neck Surgery – COSM, Dallas, TX - *Speaker* 04/2022

Controversies in the Management of Osteoradionecrosis – American Facial Plastic and Reconstructive Surgery (AFPRS) Microvascular Symposium - *Speaker* 10/2021

Ergonomics in Microvascular Surgery – American Facial Plastic and Reconstructive Surgery (AFPRS) Microvascular Symposium - *Speaker* 08/2019

Invited Talks

Preparing for ENT Sub-I – University of Buffalo 07/2023

Challenges in Soft Tissue Reconstruction – Virtual Tumor Board, AHNS	09/2023
Quality Metrics in Head and Neck Cancer – Invited Grand Rounds, Vanderbilt University	09/2022
Soft tissue reconstruction – Head and Neck Fellow Boot Camp	09/2022
Preparing for ENT Sub-I – University of Buffalo	07/2022
Gender-Neutral Parental Leave Practices Among Head and Neck Surgeons – Invited Grand Rounds, University of Alabama	07/2022
Multi-disciplinary Approach to Advanced Oral Cancer: Prevention to Palliation – International webinar	02/2021
Preparing for ENT Sub-I – University of Buffalo	06/2021
Osteocutaneous Reconstruction – Invited Grand Rounds, Georgetown University	11/2020
Tobacco Cessation Educational Program – West Virginia University Annual Tobacco Education Certification Program	2017-Present
Transoral Robotic Surgery in Oropharyngeal Cancer – West Virginia Society of Otolaryngology	2014-2015
Modern Management of Oropharyngeal Cancer – West Virginia University Alumni Days	06/2016
Parathyroid Surgery and Localization – University of Utah OtoUpdate	06/2014

Review Services

Academic Journals: <i>Head & Neck, JAMA Otolaryngology</i>	2019-Present
AHNS Peer Review: <i>Patient Education Materials via Education Committee</i>	2017-2021

Mentorship/Mentees

- Wesley Green (resident) – 2021 – Present
- Logeshvar Balaguru (M3) – 2022 – 2023
- Nainika Nanda (M3) – 2016-2017

Research Experience

Design of a Surgical Model to Assist Development of Intraoral Suturing Ability - Patel, R, Hawley K, Medical University of South Carolina, Charleston, SC Developed a de novo model to teach residents intraoral suturing techniques. Skills were tested using cadaver studies.	2014-2015
University of Utah, Division of Surgery – Hearing Research Laboratory – Preceptor: Dr. Albert Park, Department of Otolaryngology, Salt Lake City, UT	2004-2005

Developed a protocol to create an animal model of CMV-mediated hearing loss

University of Michigan Biomedical Engineering Laboratory – Preceptor: Dr. Anand Swaroop, Department of Ophthalmology, Ann Arbor, MI 2002-2004

Investigated use of microarray analysis and rtPCR procedures to study mRNA expression in mice retina.

University of Michigan Mechanical Engineering Design Project – Preceptor: Dr. James Geiger, Department of Pediatric Surgery 2004-2005

Designed and manufactured a prototype laparoscopic device for use in pyloromyotomy surgery. Patent accepted by Karl-Stortz.

Community Service

Oral Head and Neck Cancer Awareness Activities 2016-Present

Organized the first multisite screening activity for head and neck cancer awareness in West Virginia.

Fourth Street Clinic – Otolaryngology Rotation: Founder 2012-2014

Founded the first collaborative relationship between the University of Utah otolaryngology residency and a local low-income health clinic to provide necessary services for the underserved.

Himalayan Health Exchange: Volunteer April 2010

Participated in a month long outreach trip to provide essential prescriptions and medical care to rural villages in the lower Himalayas.

Poverty in Health Curriculum: Founder 2006-2010

Implemented curriculum changes over M1-M4 years to better educate students about care of the underserved.

Project H Executive Board: Health Education Coordinator 2006-2007

Planned health education activities for members of homeless shelter in Westland, MI.

Coordinated and participated in volunteer medicine clinic at the residence.

Child Family and Health International: Volunteer July 2006

Participated in HIV/AIDS health education activities. Assisted in local emergency departments. Procured health supplies and delivered these to underserved neighborhoods.

Interests

Running, making things, off-grid exploring, fermentation