

CIRRICULUM VITAE
The Johns Hopkins University School of Medicine

Name: Nicholas R. Rowan

August 29, 2018
(Date of this version)

DEMOGRAPHIC AND PERSONAL INFORMATION

Current Appointments

- ☞ 2018-present:
Assistant Professor
Department of Otolaryngology-Head and Neck Surgery
The Johns Hopkins University School of Medicine

Personal Data

- ☞ Business Address: 550 N. Broadway
Ste 1100-B
Baltimore, MD 21205
- ☞ Telephone: 410-955-2307
- ☞ Fax:
- ☞ E-mail: nrowan1@jhmi.edu

Education and Training

- ☞ Undergraduate: 2004-2005 The Pennsylvania State University, University Park, PA
- ☞ Undergraduate: 2005-2008 Bachelor of Science, Honors in Biology
Pepperdine University, Malibu, CA
Honors Thesis: "Comparative Hydraulic Transport Properties between Two Life History Types of Southern California Chaparral."
- ☞ Doctoral: 2008-2012 Doctor of Medicine
Rutgers: New Jersey Medical School, Newark, NJ
- ☞ Residency: 2012-2017 Otolaryngology Residency
Department of Otolaryngology
University of Pittsburgh Medical Center, Pittsburgh, PA
Chairman: Jonas T. Johnson, MD
- ☞ Post-graduate: 2013 Certificate, Research Education in Advancing
Investigative Careers for Housestaff & Fellows Program
(REACH)
University of Pittsburgh, Institute for Clinical Research
and Education, Pittsburgh, PA
- ☞ Fellowship 2017 Rhinology and Endoscopic Skull Base Fellowship
Department of Otolaryngology
Medical University of South Carolina, Charleston, SC
Fellowship Director: Rodney J. Schlosser, MD

MEMBERSHIPS IN PROFESSIONAL & SCIENTIFIC SOCIETIES

Alpha Omega Alpha	2016-present
The American Academy of Otolaryngic Allergy	2015-present
The American Rhinologic Society	2014-present
The American Medical Association	2014-present
The Triological Society	2013-present
The Pennsylvania Academy of Otolaryngology-Head and Neck Surgery	2013-present
American Academy of Otolaryngology-Head and Neck Surgery	2012-present
Sigma Xi, The Scientific Research Society	2011-present

HONORS & ACHIEVEMENTS

American Academy of Otolaryngic Allergy Foundation Research Award	2017
Alpha Omega Alpha Resident Member Nomination	2016
Robert A. & George C. Schein Resident Research Competition runner-up	2016
American Academy of Otolaryngology Resident Leadership Grant	2015
North American Skull Base Society Best Clinical Paper by a Resident/Fellow 1 st place	2015
Robert A. & George C. Schein Resident Research Competition 2nd runner-up	2015
American Academy of Otolaryngology Leadership Forum Resident Travel Grant	2015
Boston Marathon Qualifier	2014, 2015
New Jersey Medical School Alumni Association Scholarship	2009-2012
Outstanding Research Student Class of 2008, Pepperdine Natural Science Division	2008
Pepperdine Natural Science Division Research Credit Award	2007-2008
U.S. Department of the Interior, National Park Service Grant	2007-2009
Natural Science Division Scholarship & Mark Colombano Scholarship	2006-2008
Pepperdine Outstanding Student Athlete Scholar	2006-2007
West Coast Conference Honor Roll	2006
Xterra Triathlon Series Mid-Atlantic Region Age Group Champion, 3 rd Place Nationally	2005-2006
NCAA Division I Varsity Letter Winner: Men's Cross Country, Indoor & Outdoor Track and Field	2004-2007

PUBLICATIONS & PRESENTATIONS

PEER-REVIEWED JOURNAL ARTICLES

1. **Rowan NR**, Soler ZM, Othieno F, Storck KA, Smith TL, Schlosser RJ. Impact of Bitter Taste Receptor Phenotype upon Clinical Presentation in Chronic Rhinosinusitis. *Int Forum Allergy Rhinol*. July 4, 2018. *Epub ahead of print*. DOI: 10.1002/alr.22138.
2. Ganjaei KG, Soler ZM, Storck KA, **Rowan NR**, Othieno FA, Schlosser RJ. Variability in retronasal odor identification among patients with chronic rhinosinusitis. *Am J Rhinol Allergy*. Aug 14, 2018. DOI: 10.1177/1945892418793540.

3. Willson T, **Rowan NR**, Wang EW. Middle turbinate manipulation and postoperative sinus obstruction after endoscopic endonasal skull base surgery. *Int Forum Allergy Rhinol.* June 19, 2018. *Epub ahead of print*, DOI: 10.1002/alr.22151.
4. **Rowan NR**, Stapleton AL, Heft-Neal ME, Gardner PA, Snyderman CH. The natural growth rate of residual juvenile angiofibroma. *J Neurol Surg B.* 2018 Jun;79:257-261.
5. **Rowan NR**, Turner MT, Valappil B, Fernandez-Miranda J, Wang EW, Gardner PA, Snyderman CH. Injury of the carotid artery during endoscopic endonasal surgery: surveys of skull base surgeons. *J Neurol Surg B.* 2018 Jun;79:302-308.
6. Othieno F, Schlosser RJ, **Rowan NR**, Storck KA, Smith TL, Soler ZM. Retronasal Olfaction in Chronic Rhinosinusitis. *Laryngoscope.* *Epub ahead of print*, 2018 Apr 10, 2018. DOI:10.1002/lary.27187
7. Othieno F, Schlosser RJ, **Rowan NR**, Storck KA, Mattos JL, Smith TL, Soler ZM. Taste Impairment in Chronic Rhinosinusitis. *In press*, *Int Forum Allergy Rhinol.* 2018 Mar 23, *Epub ahead of print*, DOI:10.1002/alr.22113
8. Ganjaei KG, Soler ZM, Mappus E, Taylor R, Worley M, Mulligan J, Mattos JL, **Rowan NR**, Garcia G, Dubno J, Eckert M, Schlosser RJ. Novel radiographic assessment of the cribriform plate. *Am J Rhinol Allergy.* 2018 Jan 1; *Epub ahead of print* DOI: 10.1177/1945892418768159
9. Huyett PA, **Rowan NR**, Ferguson, BJ, Lee S, Wang EW. The Relationship of Paranasal Sinus Opacification to Hospital-Acquired Pneumonia in the Neurologic Intensive Care Unit Patient. *J Intensive Care Med.* 2017 Jan 1. [Epub ahead of print]
10. Hodzic Z, **Rowan NR**, Kashiwazaki R, Willson TJ, Wang EW, Lee SE. A systematic review of sinonasal oncocytomas and oncocytic carcinomas: diagnosis, management and technical considerations. *Int Forum Allergy Rhinol.* 2017 May;7(5):514-24.
11. **Rowan NR**, Wang EW, Kanaan AK, Sahu N, Phillips CD, Lee S. Respiratory Viral Infection in the Paranasal Sinuses of Patients with Cystic Fibrosis, *Am J Rhinol Allergy* 2017 Mar 1;31(2):105-108.
12. Heft-Neal, ME, **Rowan NR**, Willson T, Wang EW, Lee SE. A Systematic Review of Eosinophilic Angiocentric Fibrosis of the Paranasal Sinuses, *Ann Otol Rhinol Laryngol.* 2017 May; 126(5):415-423.
13. **Rowan NR**, Zwagerman NT, Heft-Neal ME, Gardner PA, Snyderman CH. Juvenile nasal angiofibromas: a comparison of modern staging systems in an endoscopic era. *J Neurol Surg B.* 2016 Feb; 78(1):63-67.
14. **Rowan NR**, Johnson JT, Fratangelo CE, Smith BK, Kemerer PA, Ferris RL. Utility of a Perioperative Nutritional Intervention on Postoperative Outcomes in High-Risk Head & Neck Cancer Patients, *Oral Oncol.* 2016 Mar;54:42-6.
15. **Rowan NR**, Wang EW, Gardner PA, Fernandez-Miranda JC, Snyderman CH. Nasal Deformities Following Nasoseptal Flap Reconstruction of Skull Base Defects. *J Neurol Surg B.* 2016 Feb;77(1):14-8.
16. **Rowan NR**, Lee S, Sahu N, Phillips C, Cox S, Wang EW. The Role of Viruses in the Clinical Presentation of Chronic Rhinosinusitis. *Am J Rhinol Allergy.* 2015 Nov;29(6): 197-200.
17. Lok B, Setton J, Caria N, Romanyshyn J, Wolden S, Zelefsky M, Park J, **Rowan N**, Sherman E, Fury M, Ho A, Pfister D, Wong R, Shah JP, Kraus DH, Zhang Z, Schupak K, Gelblum D, Rao S, Lee NY. Intensity-modulated radiation therapy in oropharyngeal carcinoma: effect of tumor volume on clinical outcomes. *Int J Radiat Oncol Biol Phys.* 2012 Apr 1;82(5):1851-7.
18. Setton J, Caria N, Romanyshyn J, Koutcher L, Wolden S, Zelefsky M, **Rowan N**, Sherman E, Fury M, Pfister D, Wong R, Shah JP, Kraus DH, Shi W, Zhang Z, Schupak K, Gelblum D, Rao S, Lee NY. Intensity-Modulated Radiotherapy in the Treatment of Oropharyngeal Cancer: An Update of the Memorial Sloan-Kettering Cancer Center Experience. *Int J Radiat Oncol Biol Phys.* 2012 Jan 1;82(1):291-8.

1. Ganjaei KG, Soler ZM, Mappus ED, Worley ML, **Rowan NR**, Garcia GJM, Dubno JR, Eckert MA, Matthews LJ, Schlosser RJ. Radiographic changes in the aging nasal cavity. *In press*. *Rhinology*. 8/13/18.
2. Kompelli AR, Janz TA, **Rowan NR**, Nguyen SA, Soler ZM. Cryotherapy for the treatment of chronic rhinitis: a systematic review. *In press*. *Am J Rhinol Allergy*. 8/1/18.
3. **Rowan NR** and Schlosser RJ. Spontaneous Cerebrospinal Fluid Leaks. First International Consensus Statement on Endoscopic Skull Base Surgery. *In press*, *Int Forum Allergy Rhinol*. 4/10/18.

BOOK CHAPTERS

1. **Rowan NR**, Sahu N, Schaitkin BS. Endoscopic Middle Meatal Antrostomy. In Myers (Ed), *Operative Otolaryngology: Head and Neck Surgery 3rd Edition*. Saunders, Elsevier Inc., Philadelphia, PA. October 2, 2017.
2. **Rowan NR**, Lee S. Non-Allergic Rhinitis. In Alper, Myers, Eibling (Eds), *Decision Making in Ear, Nose and Throat Disorders 2nd Edition*. Jaypee Brothers Medical Publishers, Philadelphia, PA. *To be released 2018*.
3. **Rowan NR**, Wang EW. Approaches to Tumors of the Skull Base. In Alper, Myers, Eibling (Eds), *Decision Making in Ear, Nose and Throat Disorders 2nd Edition*. Jaypee Brothers Medical Publishers, Philadelphia, PA. *To be released 2018*.
4. **Rowan NR**, Schaitkin BS. Complications of Bacterial Sinusitis. In Alper, Myers, Eibling (Eds), *Decision Making in Ear, Nose and Throat Disorders 2nd Edition*. Jaypee Brothers Medical Publishers, Philadelphia, PA. *To be released 2017*.

PUBLISHED ABSTRACTS:

1. **Rowan NR**, Turner MT, Wang EW, Fernandez-Miranda J, Gardner PA, Snyderman CH. A Skull Base Course Participants' Experience with Endoscopic Endonasal Carotid Artery Injuries. *J Neurol Surg B*. 2017 Mar;78(S1):S36.
2. Melvin JA, Hendricks MR, Yang G, Kiedrowski M, **Rowan NR**, Johnson M, Fitch A, Brown S, Myerburg MM, Williams J, Morris A, Lee S, Bomberger J. Viral-Bacterial Interactions in the Paranasal Sinuses in Cystic Fibrosis. *Pediatric Pulmonology*. 2016 October; 51: 315-316.
3. Snyderman CH, Chabot JD, **Rowan NR**, Wang EW, Gardner PA, Fernandez-Miranda JC. Complications of Nasoseptal Flap Reconstruction. *J Neurol Surg B*. 2016 May;77(S2):S153.
4. **Rowan NR**, Zwagerman NT, Heft-Neal ME, Gardner PA, Snyderman CH. Nasal Angiofibromas: A Comparison of Modern Staging Systems in an Endoscopic Era. *J Neurol Surg B*. 2016 Feb;77(S1):S16.
5. **Rowan NR**, Stapleton AL, Heft-Neal ME, Gardner PA, Snyderman CH. The Natural Growth Rate of Residual Juvenile Nasopharyngeal Angiofibroma. *J Neurol Surg B*. 2016 Feb;77(S1):S17.
6. Zwagerman NT, **Rowan NR**, Chabot J, Stapleton AL, Snyderman CH, Gardner PA. The Endoscopic Endonasal Approach for Intracranial Juvenile Nasopharyngeal Angiofibromas. *J Neurol Surg B*. 2016 Feb;77(S1):S19.
7. **Rowan NR**, Wang EW, Snyderman CH. Nasal Deformities Following Nasoseptal Flap Reconstruction of Skull Base Defects. *J Neurol Surg B*. 2015 Feb;76(S1):S12.
8. **Rowan NR**, Kalyoussef E., Liu JK, Jyung RW. Management of Inverted Papilloma of the Temporal Bone. *J Neurol Surg B*. 2012; 73 - A303.
9. **Rowan NR**, Kalyoussef E, Liu JK, Jyung RW. Management of Inverted Papilloma of the Temporal Bone. *Otolaryngol Head Neck Surg*. 2011 Aug; 145(S2):219-220.

NATIONAL/INTERNATIONAL SCIENTIFIC ORAL PRESENTATIONS:

1. **Rowan NR**, Soler ZM, Othieno F, Storck KA, Smith TL, Schlosser RJ. Impact of Bitter Taste Receptor Phenotype upon Clinical Presentation in Chronic Rhinosinusitis. National Harbor, MD. April 20, 2018.
2. **Rowan NR**, Schaitkin BM. Minimally Invasive Maxillary Antrostomy. Oral presentation, Simposio Internacional de Rinologia. Porto Alegre, Brazil. October 6-7, 2017.
3. **Rowan NR**, Turner MT, Wang EW, Fernandez-Miranda JC, Gardner PA, Snyderman CH. A Skull Base Course Participants' Experience with Endoscopic Endonasal Carotid Artery Injuries. Oral presentation, North American Skull Base Society. New Orleans, LA. March 3-5, 2017.
4. **Rowan NR**, Melvin JA, Hendricks MR, Yang G, Kiedrowski MR, Williams JV, Bomberger JM, Lee SE. Effect of Viral Infection on Clinical Severity of Sinonasal Disease and Iron Sequestration in Cystic Fibrosis Patients. Oral presentation, 2016 ARS at American Academy of Otolaryngology Annual Meeting. San Diego, California. September 16-17, 2016.
5. Melvin JA, Hendricks MR, Yang G, Kiedrowski M, **Rowan NR**, Johnson M, Fitch A, Brown S, Myerburg MM, Williams J, Morris A, Lee S, Bomberger J. Viral-Bacterial Interactions in the Paranasal Sinuses in Cystic Fibrosis. Oral presentation, 2016 North American Cystic Fibrosis Conference. Orlando, FL. Oct 1, 2016
6. Snyderman CH, Chabot JD, **Rowan NR**, Wang EW, Gardner PA, Fernandez-Miranda JC. Complications of nasoseptal flap reconstruction. Oral presentation, World Federation of Skull Base Societies 2016. Osaka, Japan. June 14-17, 2016.
7. Huyett PA, **Rowan NR**, Ferguson, BJ, Lee S, Wang EW. The Relationship of Healthcare-Acquired Pneumonia and Sinus Opacification in the Intensive Care Unit Patient. Oral presentation, 2016 ARS at COSM meeting. Chicago, IL. May 18-22, 2016.
8. **Rowan NR**, Zwagerman NT, Heft-Neal ME, Gardner PA, Snyderman CH. Nasal Angiofibromas: A Comparison of Modern Staging Systems in an Endoscopic Era. Oral presentation, North American Skull Base Society Annual Meeting. Scottsdale, AZ. February 12-14, 2016.
9. **Rowan NR**, Stapleton AL, Heft-Neal ME, Gardner PA, Snyderman CH. The Natural Growth Rate of Residual Juvenile Nasopharyngeal Angiofibroma. Oral presentation, North American Skull Base Society Annual Meeting. Scottsdale, AZ. February 12-14, 2016.
10. Zwagerman NT, **Rowan NR**, Chabot J, Stapleton AL, Snyderman CH, Gardner PA. The Endoscopic Endonasal Approach for Intracranial Juvenile Nasopharyngeal Angiofibromas. Oral presentation, North American Skull Base Society Annual Meeting. Scottsdale, AZ. February 12-14, 2016.
11. Sahu N, **Rowan NR**, Mattos JL, Phillips CD, Lee B, Wang EW, Lee S. The Fungal Microbiome of the Paranasal Sinuses in Health and in Chronic Rhinosinusitis. Oral presentation, American Rhinologic Society at COSM. Boston, MA. April 23-24, 2015.
12. **Rowan NR**, Wang EW, Gardner PA, Fernandez-Miranda JC, Snyderman CH. Nasal Deformities Following Nasoseptal Flap Reconstruction of Skull Base Defects. Oral presentation, North American Skull Base Society. Tampa, Florida. February 20-22, 2015
13. **Rowan NR**, Lee S, Sahu N, Kanaan A, Wang EW. The Role of Viruses in the Clinical Presentation of Chronic Rhinosinusitis. Oral presentation, Annual American Rhinologic Society Meeting. Orlando, Florida. September 20-21, 2014.
14. Kanaan AK, Ferguson BJ, Sahu N, **Rowan NR**, Wang EW, Lee S. The Sinonasal Microbiome in Patients with Cystic Fibrosis. Oral presentation, Annual American Rhinologic Society Meeting. Orlando, Florida. September 20-21, 2014.
15. Caria N, **Rowan N**, Setton J, Romanyshyn J, Wolden S, Zelefsky M, Shah JP, Kraus D, Pfister D, Lee NY. Intensity-Modulated Radiotherapy (IMRT) in the Treatment of Oropharyngeal Cancer (OPC): an Update of the Memorial Sloan-Kettering Cancer Center Experience. Oral presentation at ASTRO Multidisciplinary Head and Neck Cancer Symposium, Chandler, Arizona. 2010.

16. Setton J, Caria N, Wolden SL, Romanyshyn J, **Rowan N**, Ho M, Ganz C, Branski R, Kraus DH, Lee NY. Constrictor Muscles and Dysphagia: a Dosimetric Correlation. Oral presentation at ASTRO Multidisciplinary Head and Neck Cancer Symposium, Chandler, Arizona. 2010.

NATIONAL SCIENTIFIC POSTER PRESENTATIONS:

1. Willson T, **Rowan NR**, Wang EW. Middle Turbinate Manipulation and Postoperative Sinus Obstruction after Endoscopic Skull Base Surgery. Poster presentation, 2017 ARS at American Academy of Otolaryngology Annual Meeting. Chicago, IL. September 8-9, 2017.
2. Heft-Neal, ME, **Rowan NR**, Willson T, Wang EW, Lee SE. A Systematic Review of Eosinophilic Angiocentric Fibrosis of the Paranasal Sinuses. Poster presentation, 2016 ARS at American Academy of Otolaryngology Annual Meeting. San Diego, CA. September 16-17, 2017.
3. **Rowan NR**, Choby GW, Kim J, Kanaan A, Ferguson BJ, Lee S. Common Medications and a Negative Histamine Response in Skin Prick Testing. Poster presentation, 2016 ARS at COSM meeting. Chicago, IL. May 18-22, 2016.
4. Hodzic Z, **Rowan NR**, Kashiwazaki R, Wilson TJ, Wang EW, Lee S. A Systematic Review of Sinonasal Oncocytomas and Oncocytic Carcinomas: Diagnosis, Management, and Technical Considerations. Poster presentation, The Triological Society at COSM 2016. Chicago, IL. May 18-22, 2016.
5. **Rowan NR**, Ferguson BJ. Isolated Sphenoid Fungus Ball Leads to Hemorrhagic Stroke. Poster presentation, Triological Society Sections Meeting. Miami, FL. January 22-24, 2016.
6. **Rowan NR**, Snyderman CH. Understanding the Differences of Otolaryngologic Airways, Otolaryngology Residents as the Teacher. Poster presentation, Triological Society Sections Meeting. Miami, FL. January 22-24, 2016.
7. **Rowan NR**, Kanaan AK, Sahu N, Mattos JL, Wang EW, Phillips CD, Lee S. Viral Infection and Biofilm Induction In Patients with Cystic Fibrosis. Poster presentation, American Rhinologic Society at COSM. Boston, MA. April 23-24, 2015.
8. Mattos JL, Kanaan AK, **Rowan NR**, Lee B, Phillips CD, Wang EW, Lee S. Comparison of the Paranasal Sinus Microbiome of Cystic Fibrosis Patients with and without Double-lung Transplantation. Poster presentation, American Rhinologic Society at COSM. Boston, MA. April 23-24, 2015.
9. **Rowan NR**, Smith BK, Fratangelo CE, Kemerer PA, Johnson JT, Ferris RL. Implementation & Measurement of a Perioperative Nutritional Intervention in a High Risk Head & Neck Cancer Population. Poster presentation at the Combined Otolaryngological Spring Meetings (COSM). Las Vegas, NV. May 16-17, 2014.
10. **Rowan NR**, Kalyoussef E, Liu J, Jyung RW. Management of Inverted Papilloma of the Temporal Bone. Poster presentation, North American Skull Base Society. Las Vegas, Nevada. February 17-19, 2012.
11. **Rowan NR**, Kalyoussef E, Liu J, Jyung RW. Management of Inverted Papilloma of the Temporal Bone. Poster presentation at American Academy of Otolaryngology – Head and Neck Surgery Annual Meeting. San Francisco, California. September 11-14, 2011.
12. **Rowan N**, Wolden SL, Setton J, Pfister DG, Lee NY. Definitive Chemoradiation in Patients with Nasopharyngeal Carcinoma (NPC) Initially Presenting with Distant Metastasis: a Case Series. Poster presentation at ASTRO Multidisciplinary Head and Neck Cancer Symposium, Chandler, Arizona. 2010.
13. Romanyshyn J, Caria N, Setton J, **Rowan N**, Wolden S, Sherman EJ, Fury MG, Shike M, Kraus D, Lee NY. Percutaneous Endoscopic Gastrostomy (PEG) in Oropharyngeal Cancer (OPC) Patients Treated with Intensity-Modulated Radiotherapy (IMRT). Poster presentation at ASTRO Multidisciplinary Head and Neck Cancer Symposium, Chandler, Arizona. 2010.
14. Heffner M, **Rowan NR**, Osborne JB, Davis, SD. Ontogenetic differences in xylem traits between resprouts and adults of two species of chaparral shrubs, *Ceanothus spinosus* and *Rhamnus ilicifolia*. Poster

presentation at Ecological Society of America and Society of Ecological Restoration Annual Meeting, Milwaukee, Wisconsin. 2008.

15. Davis SD, Pratt R, Jacobsen A, Jerkins E, Osborne J, **Rowan NR**, Ewers F. Phenotypic Plasticity in Xylem Cavitation Resistance of California Chaparral. Poster presentation at MEDECOS International Meeting, Perth, Australia. 2007.
16. **Rowan NR**, Davis SD. Hydraulic Transport Properties of Post-fire Resprouts and Pre-fire Adults of Holly Leaf Redberry (*Rhamnus ilicifolia*) in the Santa Monica Mountains. Poster presentation at Ecological Society of America and Society of Ecological Restoration Annual Meeting, San Jose, California. 2007.

LOCAL & REGIONAL SCIENTIFIC PRESENTATIONS:

1. **Rowan NR**. Utility of a Perioperative Nutritional Intervention on Postoperative Outcomes in High-Risk Head & Neck Oncology Patients. Oral presentation, Nestle Nutrition Symposium, Florham Park, New Jersey. August 12, 2016.
2. **Rowan NR**. A Modern Spin on Getting It All Done in ENT Residency #productivity. Oral presentation, University of Pittsburgh Medical Center Chief Resident Grand Rounds. Oral presentation, Pittsburgh, Pennsylvania. August 10, 2016.
3. **Rowan NR**, Stapleton AS, Heft-Neal ME, Gardner PA, Snyderman CH. The Natural Growth Rate of Residual Juvenile Nasopharyngeal Angiofibroma. Poster presentation, Pennsylvania Academy of Otolaryngology-Head & Neck Surgery Annual Scientific Meeting. Bedford Springs, Pennsylvania. June 17-18, 2016.
4. **Rowan NR**, Stapleton AL, Heft-Neal ME, Gardner PA, Snyderman CH. The Natural Growth Rate of Residual Juvenile Nasopharyngeal Angiofibroma. Oral presentation, Robert Schein Resident Research Symposium. Pittsburgh, Pennsylvania. March 12, 2016.
5. **Rowan NR**, Zwagerman NT, Stapleton AL, Heft-Neal ME, Gardner PA, Snyderman CH. A Comparison of Modern Staging Systems & The Natural History of Juvenile Nasopharyngeal Angiofibromas. Oral presentation, University of Pittsburgh Department of Otolaryngology Grand Rounds. Pittsburgh, Pennsylvania. February 17, 2016.
6. **Rowan NR**, Wang EW, Gardner PA, Fernandez-Miranda JC, Snyderman CH. Nasal Deformities Following Nasoseptal Flap Reconstruction of Skull Base Defects. Oral presentation, Robert Schein Resident Research Symposium. Pittsburgh, Pennsylvania. March 21, 2015.
7. **Rowan NR** and Snyderman CH. ENT Airways: Understanding the Difference. Oral presentation, University of Pittsburgh Department of Emergency Medicine Grand Rounds. Pittsburgh, Pennsylvania. March 5, 2015.
8. **Rowan NR**, Wang EW, Gardner PA, Fernandez-Miranda JC, Snyderman CH, Lee, S. Nasal Deformities following Endoscopic Skull Base Surgery & Viral Infection and Biofilm Induction in Cystic Fibrosis. Grand Rounds Oral presentation, University of Pittsburgh Department of Otolaryngology Grand Rounds. Pittsburgh, Pennsylvania. March 5, 2015.
9. **Rowan NR**, Fratangelo CE, Johnson JT, Ferris RL. Implementation & Measurement of a Perioperative Nutritional Intervention in a High Risk Head & Neck Cancer Population. Oral presentation, Pennsylvania Academy of Otolaryngology Annual Meeting, Hershey, Pennsylvania. June 13-14, 2014.
10. **Rowan NR**, Smith BK, Johnson JT, Ferris RL. Reduction of Postoperative Complications with Perioperative Immunonutrition in Head & Neck Cancer Patients. Presented as a poster presentation at the UPMC Loren Roth Quality Improvement Symposium, Pittsburgh, Pennsylvania. 2013
11. **Rowan NR**. A Review of Nutritional Status in Head & Neck Surgical Patients and Implementation of a Perioperative Nutritional Intervention. Presented as an oral presentation at the UPMC Department of Otolaryngology Grand Rounds, Pittsburgh, Pennsylvania. 2013.

12. **Rowan NR**, Davis SD. Seasonal Water Relations and Stem Hydraulics of Post-fire Resprouts & Pre-fire Adults of Holly-leaf Redberry in the Santa Monica Mountains. Oral presentation at Southern California Conference on Undergraduate Research annual meeting, Los Angeles, California. 2007.
13. **Rowan NR**, Davis SD 2006. Differences in Water Relations between Post-fire Resprouts and Pre-fire Adults of Holly-leaf Redberry (*Rhamnus ilicifolia*) in the Santa Monica Mountains. Oral presentation at Southern California Conference on Undergraduate Research annual meeting, Los Angeles, California. 2006.

CURRENT RESEARCH ACTIVITIES & INTERESTS:

<p>American Academy of Otolaryngic Allergy Foundation Research Award</p> <ul style="list-style-type: none"> • Co-principal investigator and author of \$8500 award for grant proposal “The role of home fungal exposure in allergic fungal rhinosinusitis.” 	2017-present
<p>Outcomes research</p> <ul style="list-style-type: none"> • Multiple ongoing investigations examining both rhinologic and endoscopic endonasal skull base surgery outcomes and its potential role in quality improvement. 	2014-present
<p>Viral Infection and Biofilm Induction in Cystic Fibrosis Patients with Chronic Rhinosinusitis</p> <ul style="list-style-type: none"> • Co-investigator • Assisted with IRB creation, continue with active data collection for project awarded \$25,000 CTSI Grant. • Multifaceted investigation of interaction between respiratory viruses and the sinonasal microbiome in cystic fibrosis patients from both clinical and basic science approach. 	2014-present
<p>The Role of the Sinonasal Microbiome in the Management of Postoperative Chronic Rhinosinusitis</p> <ul style="list-style-type: none"> • Investigator • Responsible for IRB creation and continue with active data collection in multi-institutional study examining effectiveness of oral antibiotics as compared to topical antibiotics in the management of acute exacerbations of chronic rhinosinusitis. 	2014-present
<p>Otolaryngology Quality Improvement Initiatives</p> <ul style="list-style-type: none"> • Endoscopic skull base surgery non-oncologic outcomes • Head and neck cancer immunonutrition and perioperative optimization 	2012-present

PROFESSIONAL ACTIVITIES

CERTIFICATIONS

Latera Device Hands-on Training and Certification	2018
Balloon Eustachian Tube Dilation Training and Certification	2018

EDUCATIONAL MEETINGS & COURSES:

Medical University of South Carolina Federal Budgeting and Grants Management Course, Charleston, South Carolina	2018
University of Pittsburgh Medical Center Endoscopic Endonasal Surgery Course, Pittsburgh, Pennsylvania	2017

American Rhinologic Society Fellows Course: Advanced Sinus and Skull Base Surgery, Evanston, Illinois	2017
Advances in Craniomaxillofacial Surgery: Mastery of Treatment and Fixation Techniques, Tampa Florida	2017
American Academy Otolaryngic Allergy: Interactive Allergy & Rhinology Course, Dallas, Texas	2017
American Rhinologic Society Resident Sinus Course, San Diego, California	2016
University of Pittsburgh Temporal Bone Course, Pittsburgh, Pennsylvania	2016
Combined University Sinus Course, Pittsburgh, Pennsylvania	2016
University of Pittsburgh Medical Center Multidisciplinary Trauma Course, Pittsburgh, Pennsylvania	2016
University of Michigan Ross School of Business Introduction to Finance Online Course	2015
University of Pittsburgh Medical Center PGYIV Sinus Course, Pittsburgh, Pennsylvania	2015
University of Pittsburgh Medical Center Endoscopic Endonasal Surgery Course, Pittsburgh, Pennsylvania	2015
American Academy of Otolaryngology-Head & Neck Surgery Leadership Forum, Alexandria, Virginia	2015
AO Principles of Craniomaxillofacial Surgery, San Diego, California	2014
University of Pittsburgh Medical Center Otolaryngology & Plastic Surgery Trauma Course, Pittsburgh, Pennsylvania	2014
University of Pittsburgh Medical Center Laser Surgery, Laryngology Care & Laryngeal Framework Surgery Course, Pittsburgh, Pennsylvania	2014
University of Pittsburgh Medical Center Percutaneous Tracheostomy Course, Pittsburgh, Pennsylvania	2013
University of Pittsburgh Temporal Bone Course, Pittsburgh, Pennsylvania	2012
University of Pittsburgh WISER Difficult Airway Management Course, Pittsburgh, Pennsylvania	2012
ORL Emergencies Boot Camp, MedStar Georgetown University, Washington, DC	2012

VOLUNTEER:

American Rhinologic Society Resident & Fellows Committee	2017-2020
American Academy of Otolaryngology CORE Grant Reviewer	2017
Reviewer, American Journal of Rhinology & Allergy. Editors: R. Chandra, R. Sindwani and A. Peters	2017-present
Reviewer; Annals of Otology, Rhinology & Laryngology. Editor: R.J.H. Smith	2016-present
American Academy of Otolaryngology (AAO-HNS) Trauma Committee	2015-present
American Academy of Otolaryngology (AAO-HNS) Plastic & Reconstructive Surgery (PRS) Committee	2015-present
American Academy of Otolaryngology (AAO-HNS) PRS Education Committee	2015-present
AAO-HNS Section for Residents and Fellows; University of Pittsburgh Program Representative	2015-2017
University of Pittsburgh School of Medicine ENT Interest Group	2013-2017
Student Run Family Health Care Clinic (SFHCC) Rutgers New Jersey Medical School	2008-2012

TEACHING EXPERIENCE

Instructor at Southern States Rhinology course. Charleston, South Carolina.	2018
Instructor at Endoscopic Rhinology and Skull Base Surgery mobile lab. Emory University, Atlanta, Georgia.	2017
Med School Tutors: USMLE Tutor and curriculum development	2012-present
Collaborative Approach to Learning Medicine (CALM): Tutoring, course and exam reviews	2009-2012
New Jersey Medical School Scribe Service: lecture scribe and structured reviews	2008-2010

Organic chemistry Teaching Assistant

2006-2008

CERTIFICATIONS & LICENSURE

Diplomate, American Board of Otolaryngology-Head and Neck Surgery: 23685

2018-present

South Carolina Board of Medical Examiners: MD40837

2017-present

Advanced Cardiac Life Support (ACLS) Certified

2011-present

Basic Life Support (BLS) Certified

2008-present