

## COLLEGE OF MEDICINE CURRICULUM VITAE

Douglas J. Van Daele, MD  
(Rev. August 31, 2010)

### I. EDUCATIONAL AND PROFESSIONAL HISTORY

#### A. List of Institutions Attended

1. Engineering Undergraduate, University of Iowa, Iowa City, Iowa, B.S.E., August 1987-December 1991.
2. Medical School, University of Iowa, Iowa City, Iowa, M.D., August 1992-May 1996.
3. Surgical Internship, University of Iowa, Iowa City, Iowa, July 1, 1996-June 30, 1997.
4. Laryngology Research Fellow, University of Iowa, Iowa City, Iowa, July 1, 1997-June 30, 1999.
5. Otolaryngology Resident, University of Iowa, Iowa City, Iowa, July 1, 1999-June 30, 2003.
6. State of Iowa Full Medical License, Number 32034, August, 26 1997 to present.
7. American Board of Otolaryngology Diplomate, Number 18366, May 25, 2004 to June 30, 2014.

#### B. Professional and Academic Positions Held

1. Assistant Professor, Department of Otolaryngology- Head and Neck Surgery, Roy J and Lucille A Carver College of Medicine, University of Iowa, Iowa City, Iowa, July 1, 2003 to present.
2. Physician Director, University of Iowa Otolaryngology – Head and Neck Surgery Institute, University of Iowa Hospitals and Clinics, Iowa City, Iowa, March 2004 to present.
3. Adjunct Assistant Professor, Department of Radiation Oncology, Roy J and Lucille A Carver College of Medicine, University of Iowa, Iowa City, Iowa, July 1, 2006 to present.
4. Chief Medical Information Officer, University of Iowa Healthcare, University of Iowa, Iowa City, Iowa, October 2009 to present.

#### C. Honors, Awards, Recognitions, Outstanding Achievements

1. Melvin L. Marcus Research Award, University of Iowa, 1994
2. Outstanding Senior Award in Otolaryngology - Head and Neck Surgery, 1996.
3. Resident Research Award (Tie), American Bronchoesophagology Association, 2002.
4. Chief Resident, University of Iowa Department of Otolaryngology, 2002-2003.
5. Roy J and Lucille A Carver College of Medicine Appreciation Award, University of Iowa, November 15, 2007.

## II. TEACHING AT THE UNIVERSITY OF IOWA

### A. Teaching Assignments on Semester by Semester Basis

1. Interim Director, Junior Medical Clerkship in Otolaryngology – Head and Neck Surgery, July 1, 2003 to October 1, 2003.
2. Co-Course Director, University of Iowa Trans-Nasal Esophagoscopy and Laryngopharyngeal Reflux Course, 2002-2004
3. Faculty Advisor, University of Iowa Department of Otolaryngology – Head and Neck Surgery Grand Rounds Conference, 2004-2009.
4. Co-Course Director, University of Iowa Head and Neck Laser Course, 2004-2008
5. Assistant Course Director, University of Iowa Head and Neck Cancer and Reconstruction Course, 2002-2008.
6. Instructor, University of Iowa Basic Science Course in Otolaryngology, 2001-present.
7. Lecturer, Swallowing Disorders (003:026:001). Department of Speech Pathology and Audiology, College of Liberal Arts, Instructor Michael P. Karnell, PhD, Fall 2003-present.
8. Facilitator, Foundations of Clinical Practice Bioethics Small Groups, Fall 2005.
9. Facilitator, Healthcare Ethics, Law and Policy, Spring 2006 to present.
10. Co-Director, Junior Medical Clerkship in Otolaryngology – Head and Neck Surgery, June 2006 to June 2008.
11. Resident Clinical Teaching on Inpatient Ward 6 hours per week.
12. Resident Clinical Teaching in Otolaryngology Clinic 12 hours per week.
13. Resident Clinical Teaching in Operating Room 12 hours per week.

### B. Graduate Students Supervised

1. Research Supervisor, Jin Pyeong Kim, MD, PhD, Visiting Research Fellow, South Korea, August 2004 to December 2005.
2. PhD Dissertation Committee Member, Karen Bryant, Speech Language Pathology, May 2004 to January 2008.
3. Faculty Mentor, Erin O'Brien, MD, Otolaryngology – Head and Neck Surgery Resident Physician, May 2005 to June 2007.
4. Faculty Mentor, Mace Brindley, MD, Otolaryngology – Head and Neck Surgery Resident Physician, July 2005 to June 2008.
5. Masters Thesis Committee Member, Patrick Kellen, Biomedical Engineering, June 2006 to present.
6. Masters Thesis Committee Member, Amanda Felder, Biomedical Engineering, June 2006 to present.
7. Faculty Mentor, Grace Nimmons, MD, Otolaryngology – Head and Neck Surgery

Resident Physician. July 2007 to present.

8. PhD Dissertation Committee Member, Darci Becker, Speech Language Pathology, August 2007 to present.
9. Faculty Mentor, Hank Diggelman, MD, Otolaryngology – Head and Neck Surgery Resident Physician. July 2008 to present.

### C. Other Contributions to Institutional Programs

1. Electronic Medical Record Medical Coordinator, University of Iowa Department of Otolaryngology – Head and Neck Surgery, July 2003 to present.
2. Member, University of Iowa Hospitals and Clinics Root Cause Analysis Team, Epistaxis, 2004.
3. Member, University of Iowa Hospitals and Clinics, Hospital Advisory Committee Hospital Information Management Subcommittee, March 2004 to December 2009.
4. Medical Student Interviewer, University of Iowa Roy J and Lucille A Carver College of Medicine, August 2004 to present.
5. Faculty Member, National Advanced Driving Simulator, University of Iowa College of Engineering, July 2006 to present.
6. Member, University of Iowa Hospitals and Clinics New Clinical Initiative Council, June 2004 to June 2006.
7. Member, University of Iowa Hospitals and Clinics, Hospital Advisory Committee Emergency Treatment Center Subcommittee, May 2005 to June 2008.
8. Member, University of Iowa Hospitals and Clinics Clinical Information Systems Medical Specialties Review Committee, July 2005 to November 2006.
9. Member, University of Iowa Hospitals and Clinics Clinical Information Systems Research Review Committee, July 2005 to November 2006.
10. Member, University of Iowa Hospitals and Clinics Clinical Information Systems Medical Review Committee, July 2005 to November 2006.
11. Member, University of Iowa Department of Otolaryngology – Head and Neck Surgery Departmental ACGME Competencies Task Force, October 2005 to June 2007.
12. Poster Judge, Medical Student Research Day, University of Iowa College of Medicine Research Days, September 2005 to March 2008.
13. Member, University of Iowa Hospitals and Clinics Surgical Services Committee Workgroup on Integrated OR Imaging Technology, December 2005 to June 2006.
14. Member, Department of Biomedical Engineering Advisory Council, University of Iowa College of Engineering, November 2005 to present.
15. Otolaryngology Representative, University of Iowa Hospitals and Clinics Ethical Issues Subcommittee of the Hospital Advisory Committee, June 2006 to present.

16. Member, University of Iowa Physicians Information Technology Working Group, University of Iowa Roy J and Lucille A Carver College of Medicine, May 2006 to May 2009.
17. Physician Champion, Healthcare Information Systems Department, University of Iowa Hospitals and Clinics, November 2006 to May 2009.
18. Member, Section on Purchasing and Operating Imaging Equipment and Infrastructure, Diagnostic Services Subcommittee, Hospital Advisory Committee, University of Iowa Hospitals and Clinics, December 2006 to June 2008.
19. Member, Clarity Subcommittee, University of Iowa Hospitals and Clinics Epic Project, November 2006 to May 2009.
20. Member, OpTime Implementation Subcommittee, University of Iowa Hospitals and Clinics Epic Project, November 2006 to June 2008.
21. Co-Chair, Acute Care Inpatient Standards of Excellence Subcommittee, University of Iowa Roy J and Lucille A Carver College of Medicine and Hospitals and Clinics, January 2007 to May 2008.
22. Quality Assurance Lead, University of Iowa Otolaryngology – Head and Neck Surgery Clinic, University of Iowa Hospitals and Clinics, Iowa City, Iowa, April 2007 to present.
23. Co-Chair, Orders Management Subcommittee, University of Iowa Hospitals and Clinics Epic Project, April 2007 to May 2009.
24. Co-Chair, Clinical Documentation Subcommittee, University of Iowa Hospitals and Clinics Epic Project, April 2007 to May 2009.
25. Member, Steering Committee, University of Iowa Hospitals and Clinics Epic Project, April 2007 to May 2009.
26. Member, Attending Physician Task Force, Hospital Advisory Committee, University of Iowa Hospitals and Clinics, September 2007.
27. Member, Subcommittee to Address Information Technology Requirements and Options for the Children's Hospital, Critical Care Tower, and Off-Site Ambulatory Care Facility, Hospital Advisory Committee, University of Iowa Hospitals and Clinics, August 2008 to December 2008.
28. Chair, University of Iowa Hospitals and Clinics, Hospital Advisory Committee Hospital Information Management Subcommittee, January 2010 to present.
29. Member, University of Iowa Physicians Executive Committee, October 2009 to present.
30. Member, University of Iowa Physicians Practice Management Subcommittee, October 2009 to present.
31. Chair, University of Iowa Hospitals and Clinics Root Cause Analysis Team, \_\_\_\_\_, 2009.
32. . Member, University of Iowa Hospitals and Clinics Root Cause Analysis Team, \_\_\_\_\_,

2009.

33. Member, University of Iowa Healthcare Internet Steering Group, April 2009 to present.

### III. SCHOLARSHIP

#### A. Publications or Creative Works

##### 1. Peer Reviewed Publications

- a. Perlman, A.L., Schultz, J.G., **VanDaele, D.J.** (1993). Effects of age, gender, bolus volume, and bolus viscosity on oropharyngeal pressure during swallowing. *Journal of Applied Physiology*. 75(1):33-37. [PMID: 8376283]
- b. Perlman, A.L., **VanDaele, D.J.** (1993). Simultaneous videoendoscopic and ultrasound measures of swallowing. *Journal of Medical Speech-Language Pathology*. 1(4):223-232. [PMID:Not indexed via PubMed]
- c. Schultz, J.L., Perlman, A.L., **VanDaele, D.J.** (1994). Laryngeal movement, oropharyngeal pressure, and submental muscle contraction during swallowing. *Archives of Physical Medicine and Rehabilitation*. 75:183-188. [PMID: 8311675]
- d. **VanDaele, D.J.**, Perlman, A.L., Cassell, M.D. (1995). Intrinsic fiber architecture and attachments of the human epiglottis and their contributions to the mechanism of deglutition. *Journal of Anatomy*, 186(1):1-15. [PMID: 7649805]
- e. Perlman, A.L., **VanDaele, D.J.**, Otterbacher, M.S. (1995). Quantitative assessment hyoid bone displacement from video images during swallowing. *Journal of Speech and Hearing Research*, 38:579-585. [PMID: 7674650]
- f. McCulloch, T.M., **VanDaele, D.J.**, Hillel, A. (1995). Blood transfusion as a risk factor for death in stage III and IV operative laryngeal cancer. *Archives of Otolaryngology - Head and Neck Surgery*, 121(11):1227-1235. [PMID: 7576467]
- g. Solomon, N.P., Robin, D.A., Dorothy, S.I., **VanDaele, D.J.**, Luschei, E.S. (1996). Sense of effort and the effects of fatigue in the tongue and hand. *Journal of Speech and Hearing Research*, 39(1):114-125. [PMID: 8820703]
- h. McCulloch, T.M., Perlman, A.L., Palmer, P.A., **VanDaele, D.J.** (1996). Laryngeal activity during swallow, phonation, and the valsalva maneuver: an electromyographic analysis. *Laryngoscope*, 106:1351-1358. [PMID: 8914900]
- i. Perlman, A.L., Palmer, P.A., McCulloch, T.M., **Van Daele, D.J.** (1999). Electromyographic activity from human laryngeal, pharyngeal, and submental muscles during swallowing. *Journal of Applied Physiology*, 86(5):1663-1669. [PMID: 10233133]
- j. **Van Daele, D.J.**, Finnegan, E.M., Rodnitzky, R.L., Zhen, W., McCulloch, T.M., Hoffman, H.T. (2002). Head and neck muscle spasm after radiotherapy: Management with botulinum neurotoxin injection. *Archives of Otolaryngology – Head*

- and Neck Surgery*, 128:956-959. [PMID:12162778]
- k. **Van Daele, D.J.**, McCulloch, T.M., Palmer, P.M., Langmore, S. (2005). Timing of glottic closure during swallowing: A combined electromyographic and endoscopic analysis. *Annals of Otolaryngology, Rhinology, and Laryngology*, 114(6):478-487. [PMID: 16042106]
- l. **Van Daele, D.J.** (2005) Conservative management of stapler failure in Zenker's endoscopic diverticulotomy. *Annals of Otolaryngology, Rhinology, and Laryngology* 114(12):946-948. [PMID: 16425562]
- m. Andrews, B., **Van Daele, D.J.**, McCulloch, T.M., Karnell, M.P., Graham, S.N., Hoffman, H.T. (2008) Evaluation of open approach and injection laryngoplasty in revision thyroplasty cases. *Otolaryngology—Head and Neck Surgery*, 138(2):226-232. [PMID:18241721]
- n. Palmer, P.M., Jaffe, D.M., McCulloch, T.M., Finnegan, E.M., **Van Daele, D.J.**, Luschei, E.S. (2008) Quantitative contributions of the muscles of the tongue, floor of mouth, jaw and velum to tongue to palate pressure generation. *Journal of Speech-Language Hearing Research*, 51(4):828-835. [PMID: 18658054]
- o. Dogru, S., **Van Daele, D.J.**, Hansen, M.R. (2008) Retrograde labeling of the rat facial nerve with carbocyanine dyes to enhance intraoperative identification. *Annals of Otolaryngology, Rhinology, and Laryngology*, 117:753-758. [PMID: 18998504]
- p. Finnegan, E.M., Hoffman, H.T., Hemmerich, A.L., **Van Daele, D. J.** (2009) Clinical Practice: Spasmodic Dysphonia and Vocal Tremor. *ASHA Perspectives on Voice and Voice Disorders* 19: 66-73. [PMID:Not indexed via PubMed].
- q. **Van Daele, D.J.**, Cassell, M.D. (2009) Multiple forebrain systems converge on motoneurons innervating the thyroarytenoid muscle. *Neuroscience* 162(2):501-24. [PMID: 19426785]
- r. Fletcher, A.M., Preston, T.W., Kuehn, D.M., Clark, E.D. **Van Daele, D.J.**, Hoffman, H.T. (2009) Ultrasound-guided localization of recurrent paratracheal thyroid cancer. *Annals of Otolaryngology, Rhinology, and Laryngology*, 118:475-478. [PMID: 19708483].
- s. Givens, D.J., Karnell, L.H., Gupta, A.K., Clamon, G., Pagedar, N., **Van Daele, D.J.**, Funk, G.F. (2009) Adverse events associated with concurrent chemoradiation in patients with head and neck cancer. *Archives of Otolaryngology—Head and Neck Surgery*, 135(12):1209-17. [PMID: 20026818].
- t. Nimmons G.L., Hoffman H.T., Rao S.S., Clark C.R., **Van Daele D.J.** (2010) Multifactorial Dysphagia: DISH and Eosinophilic Esophagitis. *Laryngoscope*, 120(1):23-5. [PMID: 19877204].
- u. Diggelman, H.R., **Van Daele, D.J.**, O'Dorisio, T.M., Hoffman, H.T. (2010) Insular thyroid carcinoma in a patient with Cowden Syndrome. *Laryngoscope*, 120(3):454-7

[PMID: 20025044].

- v. Kellen, P.M., Becker, D.L., Reinhardt, J.M., **Van Daele, D.J.** (2010) Computer-assisted assessment of hyoid bone motion from videofluoroscopic swallow studies. *Dysphagia, epub prior to print* [PMID: 19856024].
  - w. **Van Daele, D.J.** (2010) Quantitative PCR analysis of laryngeal muscle fiber types. *Journal of Communication Disorders, epub prior to print* [PMID: 20430402].
  - x. Ames, J.A., Karnell, L.H., Gupta, A.K., Coleman, T.C., Karnell, M.P., **Van Daele, D.J.**, Funk, G.F. (in press) Outcomes following the use of gastrostomy tubes in patients whose head and neck cancer was managed with radiation therapy. *Head and Neck*.
  - y. Leder, S.B., Burrell, M.I., **Van Daele, D.J.** (in press) The epiglottis: Not essential for successful swallowing in man. *Annals of Otolaryngology, Rhinology, and Laryngology*.
2. Publications Under Peer Review
- a. **Van Daele, D.J.**, Fazan, V., Agassandian, K., Cassell, M.D. (in review) Amygdala connections with jaw, tongue and laryngo-pharyngeal premotor neurons. *Journal of Neuroscience*.
  - b. Shune, S.E. Karnell, L.H., Karnell, M.P., **Van Daele, D.J.**, Funk, G.F. (in review) Dysphagia and its association with survival in patients with head and neck cancer. *Head and Neck*.
  - c. **Van Daele, D.J.**, Bauman, N.M. (in review) Electromyographic activity in the rat cricopharyngeus during distal acid exposure. *Annals of Otolaryngology, Rhinology, and Laryngology*.
  - d. **Van Daele, D.J.**, Kim, J.P., Bock, J., Trask, D.K., (in prep) Laryngeal muscle myosin heavy chain expression determined by quantitative PCR. *Annals of Otolaryngology, Rhinology, and Laryngology*.
  - e. **Van Daele, D.J.**, Hoffman, H.T. (in prep) Esophagitis and Barrett's esophagus after head and neck radiotherapy. *Laryngoscope*.
  - f. **Van Daele, D.J.**, Bryant, K.A., Karnell, L., McCulloch, T.M. (in prep) Functional and quality of life outcomes following surgical management of Zenker's diverticulum. *Annals of Otolaryngology, Rhinology, and Laryngology*.
  - g. **Van Daele, D.J.**, Rao, S.S.C. (in prep) Esophageal hypersensitivity in globus sensation. *Annals of Otolaryngology, Rhinology, and Laryngology*.
3. Book Chapters
- a. McCulloch, T.M. **Van Daele, D.J.** (1999) Normal anatomy and physiology of the larynx and pharynx. Endoscopic Evaluation and Treatment of Swallowing Disorders

Langmore, S., ed. New York: Thieme.

- b. **Van Daele, D.J.**, Rao, S.S.C., McCulloch, T.M. (1999) Extraesophageal manifestations of gastroesophageal reflux disease. Endoscopic Evaluation and Treatment of Swallowing Disorders Langmore, S., ed. New York: Thieme.
- c. Perlman, A.P., **Van Daele, D.J.** (2006) Evaluation of the patient with dysphagia. Otolaryngology – Head and Neck Surgery, Bailey and Calhoun, ed. New York: Lippincott, Williams, and Wilkins.

4. Abstracts

- a. Perlman, A.L., Guthmiller, J.L., **VanDaele, D.J.** (1992). Age, gender, bolus volume and viscosity: effects on oropharyngeal pressure. *Asha*, 34:133.
- b. Guthmiller, J.L., Perlman, A.L., **VanDaele, D.J.** (1992). Laryngeal movement, oropharyngeal pressure, and submental muscle contraction during swallowing. *Asha*, 35:114.
- c. Perlman, A.L., **VanDaele, D.J.** (1993). Simultaneous videoendoscopic and ultrasound measures of swallowing. *Asha*, 35:114.
- d. Perlman, A.L., Palmer, P.A., **VanDaele, D.J.**, McCulloch, T.M. (1993). Electromyography of select laryngeal and pharyngeal muscles during swallowing, *Asha*, 35:247.
- e. **VanDaele, D.J.**, Perlman, A.L., Cassell, M.D. (1994). Contribution of the lateral hyo-epiglottic ligaments to the mechanism of epiglottic downfolding. *Dysphagia*, 9(4):263.
- f. Palmer, P.A., Perlman, A.L., **VanDaele, D.J.**, McCulloch, T.M. (1994). Electromyography of select laryngeal and pharyngeal muscles during swallowing, phonation, and valsalva. *Dysphagia*, 9(4):269.
- g. Palmer, P.M., Perlman, A.L., McCulloch, T.M., **VanDaele, D.J.**, Luschei, E.S. The effect of bolus volume on electromyography of select oral, laryngeal, and pharyngeal muscles. *Dysphagia* 10(2):139.
- h. Jaffe, D.M., McCulloch, T.M., **Van Daele, D.J.**, Langmore, S.E., Finnegan, E.M. A video-endoscopic and electromyographic comparison of the normal swallow, the supraglottic swallow and the Mendelsohn maneuver. *Dysphagia* 14(2):123.
- i. Jaffe, D.M, **Van Daele, D.J.**, Rao, S.S.C., McCulloch, T.M. Contribution of cricopharyngeus muscle activity to upper esophageal sphincter manometry in the normal swallow and Mendelsohn maneuver. *Dysphagia* 15(2):101.
- j. McCulloch, T.M., **Van Daele, D.J.**, Jaffe,.D.M., Rao, S.S.C. Contribution of the floor of mouth musculature to upper esophageal sphincter function. *Dysphagia* 15(2):106.
- k. **Van Daele, D.J.**, Jaffe,.D.M, Pelsang, R.E., Rao, S.S.C., McCulloch, T.M. Simultaneous manometric, electromyographic, and videofluoroscopic examination of

upper esophageal sphincter opening. *Dysphagia* 15(2):112.

- l. **Van Daele, D.J.**, Hoffman, H.T. Esophagitis and Barrett's esophagus after head and neck radiotherapy. *2005 Triological Western/Midwest Meeting*. February 2-5, 2006, San Diego, CA.
- m. **Van Daele, D.J.**, Cassell, M.D. Cortical and subcortical laryngeal connections as determined by pseudorabies retrograde labeling. (806.17/M9) *2006 Society for Neuroscience Annual Meeting*. October 18, 2006, Atlanta, GA.
- n. Andrews, B., **Van Daele, D.J.**, McCulloch, T.M., Karnell, M.P., Graham, S.N., Hoffman, H.T. Evaluation of open approach and injection laryngoplasty in revision thyroplasty cases. *American Academy of Otolaryngology – Head and Neck Surgery Annual Meeting*, September 17, 2006, Toronto, Ontario, Canada.
- o. **Van Daele, D.J.**, Cassell, M.D. Amygdala and insular connections to the larynx and tongue as determined by pseudorabies retrograde labeling. (412.24/ZZ18) *2007 Society for Neuroscience Annual Meeting*. November 2007, San Diego, CA.
- p. Kellen, P, **Van Daele, D.J.**, Reinhardt, J.M. Tracking the motion of the hyoid bone in videofluoroscopic swallowing studies. *SPIE Medical Imaging Meeting*, February 2008, San Deigo, CA.
- q. Becker, D, Kellen, P, Reinhardt, J.M., **Van Daele, D.J.** Semi-automated tracking of hyoid bone and bolus motion during videofluoroscopic swallowing studies. *Dysphagia Research Society Annual Meeting*, Charleston, SC, March 2008.
- r. Bock, J, **Van Daele, D.J.** Evaluation of rat laryngeal myosin heavy chain mRNA expression following denervation. *International Conference on Advances in Laryngeal Biophysiology*, Madison, WI, July 8, 2008.
- s. Fedler, A, **Van Daele, D.J.**, Raghavan, M. Understanding swallowing: Biomechanical model of the human upper aerodigestive tract. *Biomedical Engineering Society Annual Meeting*, St Louis, MO, October 2-4,2008.
- t. Nimmons G.L., Hoffman H.T., Rao S.S., Clark C.R., **Van Daele D.J.** Multifactorial Dysphagia: DISH and Eosinophilic Esophagitis. *Triological Society Southern & Middle Combined Sections Meeting*, Bonita Springs, FL, January 8-11, 2009.
- u. Diggelman, H.R., **Van Daele, D.J.**, O'Dorisio, T.M., Hoffman, H.T. Insular thyroid carcinoma in a patient with Cowden Syndrome. *Triological Society Southern & Middle Combined Sections Meeting*, Bonita Springs, FL, January 8-11, 2009.

## B. Areas of Research Interest and Current Projects

1. Limbic and Motor System Interaction in Laryngeal Function:  
Investigating anatomic connections in animal models between what is considered emotive areas of the central nervous system and the brainstem.

2. Head and Neck Muscle Fiber Type after Denervation Pre-and Post-Radiation Therapy:  
Dysphagia is common after surgery and radiation to the head and neck possibly due to fundamental changes in the muscle physiology after radiation. We are investigating the molecular changes in muscle fiber type after radiation therapy using quantitative PCR.
3. Electrical Stimulation for Swallowing Therapy:  
As a part of a multi-disciplinary, inter-institutional group, we are investigating the use of electrical stimulation to improve swallowing therapy after radiation treatment for head and neck cancer in a randomized clinical trial.
4. Gastroesophageal Reflux Disease (GERD) after Head and Neck Cancer Radiation Treatment:  
Therapeutic radiotherapy can induce significant xerostomia. Initial work has indicated this reduction in salivary flow predisposes patients to GERD. We are actively working to characterize the risk factors for GERD and assess treatment with proton pump inhibition.
5. Endoscopic Management of Zenker's Diverticulum:  
Emerging evidence has suggested the endoscopic treatment of Zenker's diverticulum is superior to open excision.
6. Swallowing Physiology:  
A long-term goal of my research is to better characterize swallowing and to develop better tools to evaluate and predict swallowing function.

#### C. Published Reviews of Scholarship

1. NONE

#### C. Grants Received

1. Limbic and Motor System Interaction in Laryngeal Function  
National Institute of Deafness and Communication Disorders (NIDCD -- K08 DC006931 )  
Role on Project: Principle Investigator 75% effort  
Direct Costs: \$891,801 7/1/2004 to 6/30/2009
2. Efficacy of Electrical Stimulation for Dysphagia in Head & Neck Cancer Patients  
National Cancer Institute (NCI -- R01CA120950)  
PI: Susan Langmore, Boston University Medical Center, Boston, MA  
Role on Project: Co-Investigator 5% Effort  
Total Direct Costs: \$2,807,865 6/1/2007 to 5/30/2012

#### E. Invited Lectures

1. Invited Lecturer, "Dysphagia Evaluation and Management," 7<sup>th</sup> Annual Otorhinolaryngology Update for Nurses, Iowa City, Iowa, April 13, 2002.

2. Invited Lecturer, "Trans-Nasal Esophagoscopy in the Head and Neck Practice," 8<sup>th</sup> Annual Otorhinolaryngology Update for Nurses, Iowa City, Iowa, April 12, 2003.
3. Visiting Professor, "Common Voice Disorders," Des Moines Area Medical Education Association, Des Moines, Iowa, August, 26, 2003.
4. Visiting Professor, "Fungal Sinusitis," Northeast Iowa Area Medical Education Association, Waterloo, Iowa, September 10, 2003.
5. Visiting Professor, "Common Voice Disorders," Northeast Iowa Area Medical Education Association, Waterloo, Iowa, September 10, 2003.
6. Invited Lecturer, "Trans-Oral approach to Zenker's: Treatment of choice," 12<sup>th</sup> Annual Dysphagia Research Society Meeting, San Francisco, California, October 4, 2003.
7. Invited Lecturer, "Cricopharyngeal procedures for Zenker's diverticulum and cricopharyngeal hypertrophy," 89<sup>th</sup> Annual Clinical Congress of the American College of Surgeons, Chicago, Illinois, October 21, 2003.
8. Invited Lecturer, "Communication Disorders: Hearing and Voice Disorders," University of Iowa College of Nursing Advanced Practical Nursing Course, Iowa City, Iowa, March 4, 2004.
9. Invited Lecturer, "Trans-Nasal Esophagoscopy," University of Iowa 2004 Surgical Update for Nurses, Iowa City, Iowa, March 24, 2004.
10. Invited Lecturer, "Proton Pump Inhibitors," 9<sup>th</sup> Annual Otorhinolaryngology Update for Nurses, Iowa City, Iowa, April 17, 2004.
11. Invited Lecturer, "Trans-Nasal Esophagoscopy, Equipment, Methods, and Pitfalls; Otolaryngology Uses of TNE," Laryngopharyngeal Symposium, University of Washington School of Medicine and Department of Otolaryngology – Head and Neck Surgery, Seattle, Washington, August 27-28, 2004.
12. Visiting Professor, "Trans-Nasal Esophagoscopy: Techniques, Indications, and Usefulness in the Office," Oklahoma Academy of Otolaryngology, Oklahoma City, Oklahoma, November 19, 2004.
13. Invited Lecturer, "Sudden Sensorineural Hearing Loss," University of Iowa Student Health Service, Iowa City, Iowa, January 11, 2005.
14. Invited Lecturer, "Communication Disorders: Hearing and Voice Disorders," University of Iowa College of Nursing Advanced Practical Nursing Course, Iowa City, Iowa, March 3, 2005.
15. Invited Lecturer, "Swallowing Disorders for the Engineer", University of Iowa College of Engineering, Biomedical Engineering Seminar, April 7, 2005.
16. Invited Participant, Research Planning Workshop on Spasmodic Dysphonia, National Institute of Neurologic Disorders and Stroke, June 23-24, 2005.
17. Invited Lecturer, "Rhinosinusitis," University of Iowa College of Nursing Advanced

Practical Nursing Course, Iowa City, Iowa, September 21, 2005.

18. Invited Lecturer, "Swallowing and GERD Treatment," 29<sup>th</sup> Annual SOHN Congress and Nurse Symposium, Los Angeles, California, September 24, 2005
19. Moderator, Scientific Paper Presentation Muscle and EMG II, 14<sup>th</sup> Annual Dysphagia Research Society Annual Meeting, Scottsdale, Arizona, March 25 2006.
20. Invited Lecturer, "Pathophysiology of Head and Neck Cancer Related Dysphagia," 14<sup>th</sup> Annual Dysphagia Research Society Annual Meeting, Scottsdale, Arizona, March 25 2006.
21. Invited Lecturer, "Communication Disorders: Hearing and Voice Disorders," University of Iowa College of Nursing Advanced Practical Nursing Course, Iowa City, Iowa, March 9, 2006.
22. Invited Lecturer, "Central Processing of Voice and Emotion," Neurolaryngology Study Group, 27<sup>th</sup> Annual American Laryngological Society Meeting, Chicago, Illinois, May 20, 2006.
23. Invited Lecturer, "Neurologic Control of the Larynx: Insights from Neuroanatomy," Proseminar, Department of Speech and Hearing Science, University of Iowa College of Liberal Arts, Iowa City, Iowa, February 9, 2007.
24. Invited Lecturer, "FEES-Functional Endoscopic Evaluation of Swallowing," Neurolaryngology Study Group, 12<sup>th</sup> Symposium on Neurogastroenterology and GI Motility, Orlando, FL, February 17, 2007.
25. Invited Lecturer, "Oropharyngeal Dysphagia- Clinical Approach," Neurolaryngology Study Group, 12<sup>th</sup> Symposium on Neurogastroenterology and GI Motility, Orlando, FL, February 18, 2007.
26. Invited Lecturer, "Communication Disorders: Hearing and Voice Disorders," University of Iowa College of Nursing Advanced Practical Nursing Course, Iowa City, Iowa, March 29, 2007.
27. Invited Lecturer, "Evaluation and Management of Conductive and Sensorineural Hearing Loss", Fall Medicine Update, Mount Nittany Medical Center, State University, PA, October 5, 2007.
28. Invited Lecturer, "Esophageal dysphagia across the lifespan." ASHA Annual Meeting, Boston, MA, November 15, 2007.
29. Moderator, Scientific Paper Presentations, 16<sup>th</sup> Annual Dysphagia Research Society Annual Meeting, Charleston, SC, March 6, 2008.
30. Invited Lecturer, "Cortical control of the larynx: Insights from Neuroanatomy." University of Wisconsin-Madison Division of Otolaryngology Resident Research and Alumni Day, Madison, WI, June 20, 2008.
31. Visiting Professor, "Cortical control of the larynx: Insights from Neuroanatomy." Medical

College of Georgia Department of Otolaryngology—Head and Neck Surgery, Augusta, GA, December 2, 2008.

32. Invited Lecturer, “Head and Neck Cancer: Contemporary Diagnosis and Management.” University of Iowa Department of Internal Medicine Continuing Medical Education Oncology Series, Iowa City, IA, December 9, 2008.
33. Invited Lecturer, “Use of Botulinum Toxin for Dystonia and Sialorrhea”, 17<sup>th</sup> Annual Dysphagia Research Society Annual Meeting, New Orleans, LA, March 4, 2008.
34. Invited Lecturer, “Pulsed KTP Laser for Oto Applications,” 14<sup>th</sup> Annual Otorhinolaryngology Update for Nurses, Iowa City, Iowa, April 25, 2009.
35. Invited Lecturer, “Laryngeal Muscle Fiber Changes with Denervation”, NIDCD Sponsored Research Symposium-Neural Regeneration and Communication Processes, ASHA Annual Conference, New Orleans, Louisiana, November 21, 2009.
36. Invited Workgroup Leader, Integrative Neural Systems Underlying Vital Aerodigestive Tract Functions, Madison, WI, June 17-19, 2010.

#### F. Pending Decisions

1. None

### IV. SERVICE

#### A. Membership in Professional Organizations/Committees

1. *Head and Neck Journal*, Peer Reviewer
2. *Annals of Otolaryngology, Rhinology, and Laryngology Journal*, Peer Reviewer
3. *Dysphagia*, Peer Reviewer and Editorial Board.
4. *Archives of Physical Medicine and Rehabilitation*, Peer Reviewer.
5. American College of Surgeons, Fellow.
6. American Academy of Otolaryngology – Head and Neck Surgery, Fellow.
7. American Academy of Otolaryngology – Head and Neck Surgery, Speech, Voice and Swallowing Subcommittee, Member, October 1, 2006 to September 30, 2009.
8. Society for Neuroscience, Member
9. Dysphagia Research Society, Councilor, July 1, 2007 to June 30, 2009.
10. Dysphagia Research Society, Membership Committee Chair, July 2007 to June 2009.
11. Dysphagia Research Society, Membership Committee, July 2005 to June 2007.
12. Dysphagia Research Society Abstract Reviewer, July 2003 to June 2009.
13. Dysphagia Research Society, Member.
14. American Medical Association, Member.
15. Iowa Medical Society, Member.
16. Iowa Association of Otolaryngology – Head and Neck Surgery, Member.

17. Johnson County Medical Association, Member.
18. Healthcare Information and Management Systems Society (HIMSS), Member

**B. Clinical Assignments Since Last Promotion**

None