

## COLLEGE OF MEDICINE CURRICULUM VITAE

Douglas J. Van Daele, MD  
(Rev. May 29, 2007)

### 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-present.
2. 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- present.
3. Physician Director, University of Iowa Otolaryngology – Head and Neck Surgery Clinic, University of Iowa Hospitals and Clinics, Iowa City, Iowa, March 2004 to present

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

1. Chief Resident, University of Iowa Department of Otolaryngology, 2002-2003.
2. Resident Research Award (Tie), American Bronchoesophagology Association, 2002.
3. Outstanding Senior Award in Otolaryngology - Head and Neck Surgery, 1996.
4. Melvin L. Marcus Research Award, University of Iowa, 1994.

### II. TEACHING AT THE UNIVERSITY OF IOWA

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

1. Resident Clinical Teaching in Otolaryngology Clinic 12 hours per week.

2. Resident Clinical Teaching in Operating Room 12 hours per week.
  3. Resident Clinical Teaching on Inpatient Ward 6 hours per week.
  4. Co-Director, Junior Medical Clerkship in Otolaryngology – Head and Neck Surgery, June 2006 to present.
  5. Facilitator, Healthcare Ethics, Law and Policy, Spring 2006.
  6. Facilitator, Foundations of Clinical Practice Bioethics Small Groups, Fall 2005.
  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. Instructor, University of Iowa Basic Science Course in Otolaryngology, 2001-present.
  9. Assistant Course Director, University of Iowa Head and Neck Cancer and Reconstruction Course, 2002-present.
  10. Co-Course Director, University of Iowa Head and Neck Laser Course, 2004-present.
  11. Faculty Advisor, University of Iowa Department of Otolaryngology – Head and Neck Surgery Grand Rounds Conference, 2004-present.
  12. Co-Course Director, University of Iowa Trans-Nasal Esophagoscopy and Laryngopharyngeal Reflux Course, 2002-2004.
  13. Interim Director, Junior Medical Clerkship in Otolaryngology – Head and Neck Surgery, July 1, 2003 to October 1, 2003.
- B. Graduate Students Supervised**
1. Faculty Mentor, Mace Brindley, MD, Otolaryngology – Head and Neck Surgery Resident Physician.
  2. Faculty Mentor, Erin O'Brien, MD, Otolaryngology – Head and Neck Surgery Resident Physician.
  3. Dissertation Committee Member, Karen Bryant, Speech Language Pathology PhD Candidate.
  4. Research Supervisor, Jin Pyeong Kim, MD, PhD, Visiting Research Fellow, South Korea, August 2004 to December 2005.
- C. Other Contributions to Institutional Programs**
1. Member, Steering Committee, University of Iowa Hospitals and Clinics Epic Project, May 2007 to present.
  2. Co-Chair, Clinical Documentation Subcommittee, University of Iowa Hospitals and Clinics Epic Project, April 2007 to present.
  3. Co-Chair, Orders Management Subcommittee, University of Iowa Hospitals and Clinics Epic Project, April 2007 to present.
  4. 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.
5. 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 present.
  6. Member, OpTime Implementation Subcommittee, University of Iowa Hospitals and Clinics Epic Project, November 2006 to present.
  7. Member, Clarity Subcommittee, University of Iowa Hospitals and Clinics Epic Project, November 2006 to present.
  8. 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 present.
  9. Physician Champion, Healthcare Information Systems Department, University of Iowa Hospitals and Clinics, November 2006 to present.
  10. Member, University of Iowa Physicians Information Technology Working Group, University of Iowa Roy J and Lucille A Carver College of Medicine, May 2006 to present.
  11. Otolaryngology Representative, University of Iowa Hospitals and Clinics Ethical Issues Subcommittee of the Hospital Advisory Committee, June 2006 to present.
  12. Faculty Member, National Advanced Driving Simulator, University of Iowa College of Engineering, July 2006 to present.
  13. Member, Department of Biomedical Engineering Advisory Council, University of Iowa College of Engineering, November 2005 to present.
  14. Member, University of Iowa Hospitals and Clinics Surgical Services Committee Workgroup on Integrated OR Imaging Technology, December 2005 to June 2006.
  15. Poster Judge, Medical Student Research Day, University of Iowa College of Medicine Research Days, September 2005 to present.
  16. Member, University of Iowa Department of Otolaryngology – Head and Neck Surgery Departmental ACGME Competencies Task Force, October 2005 to present.
  17. Member, University of Iowa Hospitals and Clinics Clinical Information Systems Medical Review Committee, July 2005 to November 2006.
  18. Member, University of Iowa Hospitals and Clinics Clinical Information Systems Research Review Committee, July 2005 to November 2006.
  19. Member, University of Iowa Hospitals and Clinics Clinical Information Systems Medical Specialties Review Committee, July 2005 to November 2006.
  20. Member, University of Iowa Hospitals and Clinics, Hospital Advisory Committee Emergency Treatment Center Subcommittee, May 2005 to present.
  21. Member, University of Iowa Hospitals and Clinics New Clinical Initiative Council, June 2004 to June 2006.

22. Medical Student Interviewer, University of Iowa Roy J and Lucille A Carver College of Medicine, August 2004 to present.
23. Member, University of Iowa Hospitals and Clinics, Hospital Advisory Committee Hospital Information Management Subcommittee, March 2004 to present.
24. Member, University of Iowa Hospitals and Clinics Root Cause Analysis Team, Epistaxis, 2004.
25. Electronic Medical Record Medical Coordinator, University of Iowa Department of Otolaryngology – Head and Neck Surgery, July 2003 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.
  - 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.
  - 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.
  - 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.
  - 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.
  - 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.
  - 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.
  - 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.
  - i. Perlman, A.L., Palmer, P.A., McCulloch, T.M., **Van Daele, D.J.** (1999).



- 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.** (in press) Evaluation of the patient with dysphagia. Otolaryngology – Head and Neck Surgery, Bailey and Calhoun, ed.

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. *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.

## 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. Obstructive Sleep Apnea and Driving:  
Along with a multi-disciplinary group, we have begun a pilot project to study the driving performance of patients with obstructive sleep apnea (OSA) before and after treatment.
5. SMILE Study Group:  
The SMILE study is a randomized double-blind multi-institutional trial supported by the American Academy of Otolaryngology – Head and Neck Surgery investigating the use of Evoxac in post-radiation therapy xerostomia.
6. 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.
7. Endoscopic Management of Zenker's Diverticulum:  
Emerging evidence has suggested the endoscopic treatment of Zenker's diverticulum is superior to open excision.

8. 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
3. Driving Performance in Obstructive Sleep Apnea  
PI: Douglas K. Trask, MD, PhD  
Pilot study in collaboration with NADS  
Role on Project: Co-Investigator

E. Invited Lectures

1. Invited Lecturer, ASHA Annual Meeting, Boston, MA, November 2007.
2. Invited Lecturer, "Communication Disorders: Hearing and Voice Disorders," University of Iowa College of Nursing Advanced Practical Nursing Course, Iowa City, Iowa, March 29, 2007.
3. Invited Lecturer, "Oropharyngeal Dysphagia- Clinical Approach," Neurolaryngology Study Group, 12<sup>th</sup> Symposium on Neurogastroenterology and GI Motility, Orlando, FL, February 18, 2007.
4. 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.
5. 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.
6. 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.
7. Invited Lecturer, "Communication Disorders: Hearing and Voice Disorders," University of Iowa College of Nursing Advanced Practical Nursing Course, Iowa City, Iowa, March 9, 2006.
  8. 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.
  9. Moderator, Scientific Paper Presentation Muscle and EMG II, 14<sup>th</sup> Annual Dysphagia Research Society Annual Meeting, Scottsdale, Arizona, March 25 2006.
  10. Invited Lecturer, "Swallowing and GERD Treatment," 29<sup>th</sup> Annual SOHN Congress and Nurse Symposium, Los Angeles, California, September 24, 2005
  11. Invited Lecturer, "Rhinosinusitis," University of Iowa College of Nursing Advanced Practical Nursing Course, Iowa City, Iowa, September 21, 2005.
  12. Invited Lecturer, "Swallowing Disorders for the Engineer", University of Iowa College of Engineering, Biomedical Engineering Seminar, April 7, 2005.
  13. Invited Participant, Research Planning Workshop on Spasmodic Dysphonia, National Institute of Neurologic Disorders and Stroke, June 23-24, 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, "Sudden Sensorineural Hearing Loss," University of Iowa Student Health Service, Iowa City, Iowa, January 11, 2005.
  16. Visiting Professor, "Trans-Nasal Esophagoscopy: Techniques, Indications, and Usefulness in the Office," Oklahoma Academy of Otolaryngology, Oklahoma City, Oklahoma, November 19, 2004.
  17. 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.
  18. Invited Lecturer, "Proton Pump Inhibitors," 9<sup>th</sup> Annual Otorhinolaryngology Update for Nurses, Iowa City, Iowa, April 17, 2004.
  19. Invited Lecturer, "Trans-Nasal Esophagoscopy," University of Iowa 2004 Surgical Update for Nurses, Iowa City, Iowa, March 24, 2004.
  20. Invited Lecturer, "Communication Disorders: Hearing and Voice Disorders," University of Iowa College of Nursing Advanced Practical Nursing Course, Iowa City, Iowa, March 4, 2004.

21. 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.
22. 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.
23. Visiting Professor, “Common Voice Disorders,” Northeast Iowa Area Medical Education Association, Waterloo, Iowa, September 10, 2003.
24. Visiting Professor, “Fungal Sinusitis,” Northeast Iowa Area Medical Education Association, Waterloo, Iowa, September 10, 2003.
25. Visiting Professor, “Common Voice Disorders,” Des Moines Area Medical Education Association, Des Moines, Iowa, August, 26, 2003.
26. 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.
27. Invited Lecturer, “Dysphagia Evaluation and Management,” 7<sup>th</sup> Annual Otorhinolaryngology Update for Nurses, Iowa City, Iowa, April 13 , 2002

#### F. Pending Decisions

1. Limbic System Influences on Speech and Vocalization  
NIH-NIDCD R01 submitted June 5, 2007  
Role on Project: PI
2. Collaborative Development of a Computational Model of Swallowing  
VA Merit Review submitted June 15, 2007  
Role on Project: PI

### 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 Journal*, Peer Reviewer.
4. *Archives of Physical Medicine and Rehabilitation*, Peer Reviewer.
5. American Academy of Otolaryngology – Head and Neck Surgery, Member.
6. American Academy of Otolaryngology – Head and Neck Surgery, Speech, Voice and Swallowing Subcommittee, Member, October 1, 2006 to September 30, 2009.
7. Society for Neuroscience, Member
8. Dysphagia Research Society, Councilor, July 1, 2007 to June 30, 2009.
9. Dysphagia Research Society, Membership Committee, July 2005 to present.
10. Dysphagia Research Society Abstract Reviewer, July 2003 to present.

11. Dysphagia Research Society, Member.
12. American Medical Association, Member.
13. Iowa Medical Society, Member.
14. Iowa Association of Otolaryngology – Head and Neck Surgery, Member.
15. Johnson County Medical Association, Member.
16. Healthcare Information and Management Systems Society (HIMSS), Member

**B. Clinical Assignments Since Last Promotion**

None