

CURRICULUM VITAE

Garth F. Essig, Jr.

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Introduction - Biographical Information

Awards / Honors

Jun 2012, Featured Practice, Angie's List

Jun 2008, First Prize Clinical Research Award Fitzhugh Symposium, University of Virginia

Jun 2008, First Prize Temporal Bone Dissection Fitzhugh Symposium, University of Virginia

Certifications

Thyroid and Parathyroid Ultrasound, American College of Surgeons, Sep 2009

Board Certified Otolaryngology: Otolaryngology, American Board of Otolaryngology, Jun 2009

Degrees

Jun 2003, Ohio State University College of Medicine, MD, *Cum Laude*

Dec 1998, Miami University of Ohio, BA, *Summa Cum Laude*

Licenses

Medical Doctor (MD): State Medical Board of Ohio, Aug 2009

Medical Doctor (MD): Australian Medical Council, Aug 2008 - Jul 2009

Medical Doctor (MD): Virginia Medical Board, Jul 2003 - Jul 2008

Positions

Jul 2010, Director of Head and Neck Trauma, Otolaryngology, The Ohio State University College of Medicine

Jul 2009, Assistant Professor, Otolaryngology, Ohio State University College of Medicine

Jul 2008 - Jul 2009, Instructor, Otolaryngology - Head and Neck Surgery, Princess Alexandra Hospital

Jun 2004 - Jun 2008, Instructor, Otolaryngology - Head and Neck Surgery, University of Virginia

Jul 2003 - Jun 2004, Instructor, General Surgery, University of Virginia

Preferred Personal Information

Garth F. Essig, Jr.. (Publishing Name: Essig, GF). garth.essig2@osumc.edu. 915 Olentangy River Rd, Suite 4000, Columbus, Ohio 43212, United States

Teaching

Academic Advising

Advisor, Benjamin Tweel, Resident, Jul 2012

Extension & Continuing Education Instruction

Nasal bone fractures. Ohio State University College of Medicine, Otolaryngology. Apr 2014 (Lecture). 100%

Diseases of the Head and Neck. The Ohio State University College of Medicine, Ambulatory Care Clerkship. Nov 2012 (Lecture). 100%

Updates in Maxillomandibular Fixation. The Ohio State University College of Medicine, Otolaryngology - Head and Neck surgery. Nov 2012 (Lecture). 100%

Review of Craniomaxillofacial Plating System. The Ohio State University College of Medicine, Otolaryngology - Head and Neck Surgery. Oct 2012 (Lecture). 100%

Primary Hyperparathyroidism. The Ohio State University College of Medicine, Medical Student Surgery Interest Group. Feb 2012 (Lecture). 100%

Zygomaticomaxillary Complex fractures. The Ohio State University College of Medicine, Otolaryngology - Head and Neck Surgery. Jan 2012 (Lecture). 100%

Intraoperative Recurrent Laryngeal Nerve Monitoring. University of Virginia, Otolaryngology - Head and Neck Surgery. Jun 2011 (Guest Lecture). 100%

Intraoperative Recurrent Laryngeal Nerve Monitoring. The Ohio State University College of Medicine, Otolaryngology - Head and Neck Surgery. Jun 2011 (Lecture). 100%

Diseases of the Head and Neck in Adults. The Ohio State University College of Medicine, Ambulatory Care Clerkship. Jan 2011 (Lecture). 100%

Midface Fractures. The Ohio State University College of Medicine, Otolaryngology - Head and Neck Surgery. Nov 2010 (Lecture). 100%

Zygomaticomaxillary Complex fractures. The Ohio State University College of Medicine, Otolaryngology - Head and Neck Surgery. Nov 2010 (Lecture). 100%

Robotic Surgery Course. The Ohio State University College of Medicine, Center for Advanced Robotic Surgery. Oct 2010 (Continuing Education). Participant

Head and Neck Surgery. The Ohio State University College of Medicine, Surgery Clerkship. Jul 2010 (Lecture). 100%

Emergencies in Otolaryngology. Reykjavik University, Otolaryngology - Head and Neck Surgery. Apr 2010 (Guest Lecture). 100%

Thyroid Surgery with Intraoperative Nerve Monitoring. Massachusetts Eye & Ear Infirmary and Harvard Medical School, Otolaryngology - Head and Neck Surgery, Division of Thyroid and Parathyroid Surgery. Apr 2010 (Precepting). Observership

Diseases of the Head and Neck in Adults. The Ohio State University College of Medicine, Ambulatory Care Clerkship. Jan 2010 (Lecture). 100%

Head and Neck Surgery. The Ohio State University College of Medicine, Surgery Clerkship. Nov 2009 (Lecture). 100%

Thyroid and Parathyroid Ultrasound. American College of Surgeons, Endocrine Surgery. Sep 2009 (Continuing Education). Participant

Ultrasound for Surgeons. American College of Surgeons, Endocrine Surgery. Sep 2009 (Continuing Education). Participant

Thyroid Ultrasound / Ultrasound Guided Needle Biopsy. Ohio State University College of Medicine, Endocrinology, Diabetes, and Metabolism. Jun 2010 (Precepting). US FNA Training

Undergraduate / Graduate / Professional Courses Taught

Otologic Disease. The University of Queensland, Audiology Studies, School of Health and Rehabilitation Sciences. Sep 2008 (Fall Semesters) (Graduate). 100%

Published Works

Abstracts & Short Entries

Kane SL, Gerlach AT, Cook C, Essig G, Dasta J. "Variation in Bispectral Index Values in Chemically Paralyzed Patients." [Abstract]. *Pharmacotherapy* 2001;21,369. [Peer-Review] (In Press). 25% Authorship

Journal Articles

Ramesh AS, Cartabuke R, Essig G, Tobias JD. "Oxymetazoline-induced postoperative hypertension." *Pediatric Anesthesia and Critical Care Journal*. Vol. 1, no. 2. (Dec 2013): 72-77. (Published).

100% Authorship.

Essig GF, Porter K, Schneider D, et al. "Fine Needle Aspiration and Medullary Thyroid Carcinoma: The Risk of Inadequate Preoperative Evaluation and Initial Surgery When Relying Upon FNAB Cytology Alone." *Endocrine Practice*. Vol. 19, (Jun 2013): 1-27. (2.33) (Published).

50% Authorship. Study design; data collection; data analysis; manuscript composition and preparation. Citation Count: 0.

Essig GF, Jameson MJ, Carter WB, et al. "Parathyroid Physiology." *emedicine*. Vol.

<http://emedicine.medscape.com/article/874690-overview>, (Jul 2012): 874690. (Published).

100% Authorship. Data review; manuscript preparation.

Walz PC, Iwenofu H, Essig GF. "Ectopic mediastinal goiter successfully managed via cervical approach: Case report and review of the literature." *Head and Neck*. Vol. 15, (Nov 2011): 10.1002/hed.21920. (2.40) (Published).

50% Authorship. Study design; data analysis; manuscript preparation. Citation Count: 0.

Peters, Peter; Stark, Patrick; Essig, Garth; et al. "Lingual thyroid: an unusual and surgically curable cause of sleep apnoea in a male." *SLEEP AND BREATHING*. Vol. 14, no. 4. (Dec 2010): 377-380. (1.68) (Published).

40% Authorship. Study design; data analysis; manuscript preparation. Citation Count: 2.

Kesser BW; Raghavan P; Mukherjee S; et al. "Duplication of the internal auditory canal: radiographic imaging case of the month." *Otology & Neurotology: Official Publication Of The American Otological Society, American Neurotology Society [And] European Academy Of Otology And Neurotology*. Vol. 31, no. 8. (Oct 2010): 1352. (Published).

40% Authorship. Study design; data collection; data analysis; manuscript preparation.

Essig, Garth, F; Newman, Steven, A; Levine, Paul, A. "Sparing the eye in craniofacial surgery for superior nasal vault malignant neoplasms - Analysis of benefit." *ARCHIVES OF FACIAL PLASTIC SURGERY*. Vol. 9, no. 6. (Nov 2007): 406-411. (0.81) (Published).

100% Authorship. study design; study conduct; data collection; data analysis; manuscript preparation. Citation Count: 3.

Essig GF, Kitipornchai L, Adams F, Zarate D, et al. "Lateral Temporal Bone Resection in Advanced Cutaneous Squamous Cell Carcinoma: Report of 35 Patients." *Journal of Neurological Surgery*. (In Press).

90% Authorship. Study design; study conduct; data collection; data analysis; manuscript preparation. Citation Count: 0.

Potential Publications Under Review

Essig GF, Strigenz D, Foote M, et al. "Margin Status in the Treatment of Merkel Cell Carcinoma of the Head and Neck: Does Wide Excision Matter?." (In Preparation).

Essig GF, Walz LC, Kloos RT, et al. "Trends in multifocality in sporadic medullary thyroid carcinoma, an international perspective." (In Preparation).

Scholarly Presentations

Essig GF, Presenter. "Goiter Surgery." Presented at Department of Otolaryngology - Head and Neck Surgery, Community Grand Rounds (Nov 2014)

100% Authorship

Essig GF, Lecturer. "Surgery for Hyperparathyroidism." Presented at MedNet21 Webcast (May 2014)

100% Authorship

Pierce D, Essig G, Kirsch C, Editor. "Wooden't You Know It! : Case Series of Wooden Foreign Bodies Found in the Head and Neck." Presented at Radiological Society of North America, Chicago, Illinois (Nov 2012)

30% Authorship

Kloos RT, Walz PC, Essig GF, et al., Editor. "Fine needle aspiration and medullary thyroid carcinoma: the risk of inadequate preoperative evaluation and initial surgery when relying upon FNA cytology alone." Presented at European Thyroid Association, Pisa, Italy. (Sep 2012)

40% Authorship

Foote M, Essig G, Christophel J, Levine P, Poulsen M, Editor. "Margin Status in Merkel Cell Carcinoma." Presented at Australian Society of Otolaryngology - Head and Neck Surgery, Singapore (Sep 2011)

30% Authorship

Essig GF, Lecturer. "Frontal Sinus Fractures." Presented at Maxillofacial Trauma and Plating Course, University of Virginia, Charlottesville, Virginia (Jun 2011)

100% Authorship

Essig GF, Lecturer. "Midface Fractures." Presented at Maxillofacial Trauma and Plating Course, University of Virginia, Charlottesville, Virginia (Jun 2011)

100% Authorship

Kitipornchai L, Essig G, Adams F, Porceddu S, Gandhi M, Panizza B, Editor. "Advanced Cutaneous Squamous Cell Carcinoma with Temporal Bone Extension: Evaluation of Staging and Temporal Bone Resection." Presented at Australian Society of Otolaryngology - Head and Neck Surgery, Sydney, Australia. (Mar 2010)

50% Authorship

Peters P, Stark P, Essig G, Bowman J, Tran K, Coman S, Editor. "Excision of Lingual Thyroid to Treat Severe Sleep Apnea." Presented at Australian Society of Otolaryngology - Head and Neck Surgery, Sydney, Australia. (Mar 2010)

20% Authorship

Christophel J, Essig GF, Syed Z, Jameson M, Levine P., Editor. "Margin Status in the Treatment of Merkel Cell Carcinoma: Does Wide Excision Matter?." Presented at 33rd Fitzhugh Symposium, Charlottesville, Virginia (Jun 2009)

20% Authorship

Adams F, Kitipornchai L, Essig G, Panizza B, Editor. "Advanced Cutaneous Malignancy with Temporal Bone Extension: Evaluation of staging and Temporal Bone Resection." Presented at 78th Annual Scientific Congress - Royal Australasian College of Surgeons Brisbane, Australia. (May 2009)

50% Authorship

Essig GF, Carfrae MJ, Hashisaki GT, Kesser BW, Steiner L, Presenter. "Repeat Gamma Knife Radiosurgery for Refractory Vestibular Schwannomas." Presented at 32nd Fitzhugh Symposium, Charlottesville, Virginia (Jun 2008)

80% Authorship

Essig GF, Newman SA, Levine PA, Presenter. "Sparing the Eye in Craniofacial Surgery for Superior Nasal Vault Malignant Neoplasms: Is it worth it?." Presented at 31st Fitzhugh Symposium, Charlottesville, Virginia (Jun 2007)

90% Authorship

Essig GF, Newman SA, Levine PA, Presenter. "Sparing the Eye in Craniofacial Surgery for Superior nasal vault Malignant Neoplasms." Presented at North American Skull Base Society, Chicago, Illinois (May 2007)

60% Authorship

Essig GF, Miller RS, Holt JR, Presenter. "Regeneration of Auditory Hair Cell Using Math1 Gene Transfection." Presented at 30th Fitzhugh Symposium, Charlottesville, Virginia (Jun 2006)

90% Authorship

Essig GF, Kesser BW, Presenter. "Prognostic Factors in Unilateral Idiopathic Sudden Sensorineural Hearing Loss." Presented at Virginia Society of Otolaryngology - Head and Neck Surgery, Charlottesville, Virginia (May 2006)

90% Authorship

Essig GF, Kesser BW, Presenter. "Prognostic Factors in Unilateral Idiopathic Sudden Sensorineural Hearing Loss." Presented at 29th Fitzhugh Symposium, Charlottesville, Virginia (Jun 2005)

90% Authorship

Funding

Grants / Contracts / Clinical Trials

Apr 2014 Essig GF, "Practical Approaches to Maxillofacial Trauma and Reconstruction" Stryker. \$10,000 (USD). Program Director.

Feb 2013 Essig GF, "Practical Approaches to Maxillofacial Trauma and Reconstruction" Stryker. \$10,000 (USD). Program Director.

Nov 2011 Essig GF, "Practical Approaches to Maxillofacial Trauma and Reconstruction" Stryker. \$10,000 (USD). Program Director.

Jan 2012 Essig, GF, "Practical Approaches to Maxillofacial Trauma and Reconstruction" Stryker. \$10,000 (USD). Program Director.

Service

Clinical Interests

Endocrinology & Metabolism, Otolaryngology, Pediatric Otolaryngology.

Clinical Service

Adult Otolaryngology Clinic (Medical): Other, Lewis Center. Dec 2010.

Adult Otolaryngology Clinic (Medical): Mentor, Gahanna. Oct 2010.

Inpatient/outpatient Surgery for Resident Clinic Patients (Medical): Mentor, Ohio State University Hospital main OR and outpatient surgery center. Jul 2010.

Inpatient Surgery (Medical): Mentor, Nationwide Children's Hospital. Dec 2009.

Outpatient Surgery Center (Medical): Mentor, Nationwide Children's Hospital. Dec 2009.

Pediatric Otolaryngology Clinic (Medical): Mentor, Nationwide Children's Hospital. Dec 2009.

Adult Otolaryngology Clinic (Medical): Mentor, Eye and Ear Institute. Jul 2009.

Inpatient Surgery (Medical): Mentor, Ohio State University Hospital operating room. Jul 2009.

Inpatient/outpatient Surgery for Prison service (Medical): Mentor, Ohio State University Hospital operating room. Jul 2009.

Otolaryngology Inpatient Consultation Service (Medical): Attending coverage of inpatient consultation and ER 24/7, Ohio State University Hospital. Jul 2009.

Outpatient Surgery Center (Medical): Mentor, Eye and Ear Institute. Jul 2009.

Professional Voice Call (Medical): Mentor, Eye and Ear Institute. Jul 2009.

Tracheostomy Consultation Service (Medical): Mentor, Ohio State University Hospital, Ross Heart Hospital. Jul 2009.

Trauma Call (Medical): Mentor, Ohio State University Hospital. Jul 2009.

Pediatric Outreach Clinic (Medical): Other, Athens County Health Department. Oct 2009 - Dec 2011.

Otolaryngology Clinic (Medical): Other, Wilson Memorial Hospital. Dec 2010 - Sep 2011.

Prison Clinic (Medical): Mentor, Correctional Medical Center. Jul 2009 - Jul 2011.

Pediatric Outreach Clinic (Medical): Other, Ross County Health Department. Apr 2010 - Apr 2010.

Editorships & Reviews

Laryngoscope, Ad hoc Reviewer Mar 2012

Other Professional/Public Services

Medical: Humanitarian Outreach, Deadly Ears Program for Aboriginal and Torres Strait Islanders, Cherbourg, Australia, Queensland, Australia.

Medical: Pediatric outreach clinic, Ross County Health Department,.

Medical: Pediatric hearing clinic, Athens, Ohio, Oct 2009 - Dec 2011.

Service on Unit / College / University Committees

The Ohio State University College of Medicine, Center, Formulary Committee, Member, Jul 2013.

The Ohio State University College of Medicine, Institute, Difficult Airway Initiative, Member, Mar 2011.

Ohio State University Medical Center, Eye and Ear Institute, Institute, Quality and Process Committee, Outpatient Surgery Center, Member, Jul 2010.

The Ohio State University College of Medicine, Department, Resident Selection Committee, Otolaryngology - Head and Neck Surgery, Member, Oct 2009.

Service to Professional Societies

AO Craniomaxillofacial, Member, Oct 2012.

American Academy of Facial Plastic and Reconstructive Surgery, Member, Jul 2010.

American Thyroid Association, Member, Jan 2010.

Thyroid Cancer Survivors Association, Member, Jan 2010.

American Academy of Otolaryngology - Head and Neck Surgery, Member, Jul 2004.

Virginia Society of Otolaryngology Head and Neck Surgery, Member, Jul 2004 - Jul 2009.

Narratives

Approach & Goals to Teaching (req.)

Dr Essig interacts with residents (PGY1-PGY5) on a consistent basis and promotes active learning within a clinical context. This includes teaching during outpatient clinic, operative cases, rounds, call/inpatient consultation and during teaching conferences.

Dr. Essig stresses the importance of personal integrity and encourages meticulous preparation for operative cases as well as individual responsibility and accountability. Each trainee is asked to assess themselves honestly to determine their strengths and weaknesses and develop a goal oriented approach to consistent progress and improvement.

Through patient care, Dr. Essig highlights the importance of the doctor-patient relationship and encourages residents to become involved in all aspects of patient care including, but not limited to, the informed consent process, and pre and postoperative care.

Curriculum Development (req.)

Dr Essig has developed the trauma curriculum for otolaryngology residents to cover face, head and neck trauma. Residents and medical students from both Ohio State University and Doctor's Hospital have also been included. The program is a 2 day course divided into lectures on the first day and a dissection course using fresh cadavers on the second. the lecture portion covers both basic principles with rotating advanced topics. The dissection course is based on a dissection manual taken from "Approaches to the facial skeleton," by Zide and Ellis and focuses and surgical technique.

Faculty participation is primarily from our department, Nationwide Children's hospital as well as other disciplines such as ophthalmology and oculoplastics.

A visiting professor from the University of Virginia attends annually to provide an outside perspective. Through this relationship we have been included in an IRB approved study to develop a soft tissue surgical skill simulator. This will be a prospective study evaluating the residents over time to determine if time spent in a surgical simulator improves skill.

The Goal of the course is to continue to expand the reach of the course and incorporate other departments who care for facial trauma patients.

Evaluation of Teaching (req.)

Dr Essig is consistently evaluated by both medical students in their clinical years and and resident physicians (PGY1-5). On a 5 point scale 90% of residents rated him in the category with an overall average of 4.9. Residents who rotate on the university service are also given an exit interview.

Feedback from the residents is then used to improve their education in clinic and the operating room. This open discourse is encouraged to tailor the residents education to particular strengths and weaknesses for the individuals and the program at large.

Specific improvements include more structured teaching in clinic and hands on review of surgical planning for the resident covering the prison service.

From the annual trauma course, evaluations of the overall curriculum, including the cadaver dissection, lecture content and delivery are thoroughly taken into account. Feedback from course participants is strongly considered in the design for the following year and used to refine lectures and the dissection manual.

A specific example includes rotating topics in the trauma course to maximize resident exposure of the subject and continuing use of cadaver dissection to learn approaches to the facial skeleton following lectures.

Focus of Research (req.)

Currently Dr. Essig has been developing a head and neck endocrine practice. Two research projects evaluating medullary thyroid cancer (MTC) are underway with mentor Dr. Richard Kloos in endocrinology. The projects are the result of an international collaboration assessing more than 300 patients. The research focused on the utility of fine needle aspiration (FNA) in MTC and specifically the risk of inadequate preoperative evaluation and initial surgery when relying upon FNA cytology alone. This project is currently completed and pending submission. Data is currently being analyzed to evaluate multifocality in sporadic MTC as well.

From a basic science perspective, Dr Essig has developed a collaboration with Dr. Hans Iwenofu from the department of pathology to look at the activation of the mammalian target of rapamycin (mTOR) pathway in thyroid Carcinoma. An institutional database search was performed to identify recent cases of follicular, papillary, medullary, anaplastic and poorly differentiated thyroid carcinomas. Representative formalin fixed, paraffin embedded tissue blocks were chosen (OSUMC Tissue Archive Services), from which tissue cores from each tumor were incorporated into a tissue microarray (TMA). The TMA included 86 thyroid carcinomas. Immunohistochemical analysis was performed on the TMA sections for each tumor type and the data has been collected and analyzed.

Additionally, as the annual trauma course has developed, Dr. Essig has collaborated with Dr. Jared Christophel from the University of Virginia to obtain IRB approval to develop a soft tissue surgical simulator in conjunction with the annual course. This is set start this year. The model will involve soft tissue surgery on pig's feet. Subjects' hands will be videotaped performing the skill and blinded evaluators rating the closure based on multiple metrics. There are three phases to the study. The first is to create a valid technical model that correlates well with experience and level of expertise. The second phase is to ask whether repeated practice at this model can improve surgical/technical skills. The third phase is to assess whether the model could be used as a predictor of technical skill in residency.

Future plans are underway to develop a head and neck ultrasound (US) and FNA clinic. Patients would be offered this service within the department and a curriculum will be developed so that residents obtain certification and expertise in head and neck US.

Service Activities (req.)

Dr. Essig has been involved in several outreach programs both locally and internationally. He was involved with the Deadly Ears program which provides hearing screening and ENT surgery to aboriginal and Torres Strait islanders in Queensland, Australia. Locally, he travelled to Athens, Ohio on a monthly basis to work at the health department. This clinic identified children with hearing loss and those in need of ENT surgery. All surgical cases were coordinated with Nationwide Children's Hospital.

Additionally, Dr. Essig staffs surgical cases from the chief resident clinic on a consistent basis.

Biographical

Garth F. Essig, Jr., MD, FACS is an Assistant Professor in the Department of Otolaryngology - Head & Neck Surgery at The Ohio State University Wexner Medical Center. His area of expertise includes the surgical management of thyroid and parathyroid disease.

Dr. Essig is a second generation central Ohio physician who completed his undergraduate degree at Miami University and obtained his medical degree from the Ohio State University College of Medicine and Public Health. He completed a one year general surgery internship followed by residency training in Otolaryngology-Head and Neck surgery at the University of Virginia in Charlottesville, Virginia.

Upon completion of his residency training, Dr. Essig was awarded a fellowship in the Department of Otolaryngology-Head and Neck Surgery at the Princess Alexandra Hospital in Brisbane, Australia, under the guidance of Professor William B. Coman FRCS, FRACS. The focus of the fellowship was in head and neck surgery for both benign and malignant diseases of the head and neck.

In addition to treating benign and malignant lesions of thyroid/parathyroid, Dr. Essig is also available for general adult and pediatric otolaryngology including: sleep apnea surgery, sinus and allergy disorders, nasal obstruction, voice and swallow dysfunction, salivary gland surgery, ear and hearing disorders, head and neck masses and facial trauma.

Dr. Essig holds privileges at the Ohio State University Hospital, James Cancer Hospital and Nationwide Children's Hospital. He is a fellow of the American College of Surgeons, and a member of the American Academy of Otolaryngology-Head and Neck Surgery, American Academy of Facial Plastic Surgeons and the American Thyroid Association.

Noteworthy Accomplishments - Graduate Students

Certificate of Merit award for poster presentation at the 98th Scientific Assembly and Annual Meeting of the Radiological Society of North America, November 25-30, 2012, McCormick Place, Chicago, Illinois.

Drew Pierce, MD. A Case Series of Non-Metallic Foreign Bodies in the Head and Neck.

Quality Indicators

Dr. Essig has achieved above 95% patient satisfaction for the past 3 years. His practice has been designated a "preferred practice" by Angie's list.