

[View this email in your browser](#)



Makers @ HS/HSL: Emergency Surgical Airway Training

Maker:	Ali Aledhaim
Affiliation:	<u>University of Maryland School of Medicine,</u> <u>Department of Emergency Medicine</u>
Project:	3D print a model for cricothyrotomy practice
Used:	<u>Afinia H480,</u> <u>The Airway App 3D Cric Trainer</u>

Ali Aledhaim, MS, DrPH is an Emergency Medicine postdoctoral fellow working in the lab of [Jon Mark Hirshon](#), MD, PhD. Dr. Aledhaim used the HS/HSL Innovation Space to 3D print a model used for cricothyrotomy training.

Cricothyrotomy is an incision made through the skin of the neck and cricothyroid membrane to establish an open and clear airway during life-threatening situations when all other attempts have failed.

According to Dr. Aledhaim, a cricothyrotomy is a very challenging procedure that happens when a patient's airway cannot be maintained by noninvasive means, and is complicated by the fact that the skill is not practiced frequently enough to the level where health providers feel comfortable performing it in a prehospital emergency setting.

Such emergency surgical airways can also be challenging due to the anatomy



The cricothyrotomy model ("[3D Cric Trainer](#)") Dr. Aledhaim printed in the HS/HSL Innovation Space.

"Sometimes emergency medical services providers without sufficient training need to perform cricothyrotomy. Even those with occasional training find it difficult to locate the landmarks or lack confidence in performing the procedure in fear of causing irreversible damage."

In training, Dr. Aledhaim notes that this procedure is usually performed on mannequins or cadavers, "but after the second trainee has practiced on it, subsequent students can easily see the insertion site instead of having to blindly palpate the cricothyroid membrane and locate the site prior to insertion."

As a volunteer Baltimore County paramedic in addition to his research, Dr.

simulation for him and his peers.



Ali Aledhaim earned a PhD in [Public Health](#) with a focus on epidemiology and statistics from Morgan State University and a BS/MS in [Emergency Health Services](#) from UMBC. He is interested in developing evidence-based practices for the emergency medical services field.

Emerging Tech in the News and Literature

1. [3-DIY: Printing Your Own Bioprinter](#) (cmu.edu)
2. [The Airway App: Exploring the Role of Smartphone Technology to Capture Emergency Front-of-Neck Airway Experiences Worldwide](#) (wiley.com)
3. [Recent Progress in Virtual Reality Exposure Therapy for Phobias: A Systematic Review](#) (nih.gov)

Meet the Makers Speaker Series: Dr. Luana Colloca, October 17 @ 12pm, HS/HSL

"The neurobiology of pain modulation: from placebo effects to virtual reality"

Please join us for Meet the Makers, our ongoing guest speaker series focused on emerging technologies in the health sciences. ([RSVP here](#))

The next event features Dr. Luana Colloca from the University of Maryland Schools of Medicine and Nursing.



[Subscribe](#)[Past Issues](#)[Translate ▼](#)

placebo effects and virtual reality on pain modulation with an emphasis on relevant discoveries, new insights and developments.

A light lunch will be served. [Please RSVP here.](#)

Date: Wednesday, October 17, 2018

Time: 12pm - 1pm

Location: Health Sciences and Human Services Library, Gladhill Boardroom

Upcoming HS/HSL Innovation Space Workshops

Introduction to 3D Printing

- October 10, 2018

Introduction to 3D Modeling

- October 18, 2018

[Register for our free workshops](#)

New to the HS/HSL Innovation Space?

The Innovation Space is designed for innovative and collaborative hands-on learning experiences. It offers a [HTC Vive VR system](#), two [3D printers](#), two [3D scanners](#), a plotter for [poster printing](#), a [zSpace](#) virtual reality station, [Google Cardboard](#) viewers, a large DNA model, two molecule kits, a button maker, and a 3D printing pen. The staff provides orientations as well as workshops on a regular basis for those who are new to 3D printing and 3D scanning.

For more information, visit our webpage at <http://www.hshsl.umaryland.edu/services/inspace/>.



[Subscribe](#)[Past Issues](#)[Translate ▼](#)

Copyright © 2018 Health Sciences & Human Services Library, University of Maryland, Baltimore, All rights reserved.

Want to change how you receive these emails?

You can [update your preferences](#) or [unsubscribe from this list](#)

