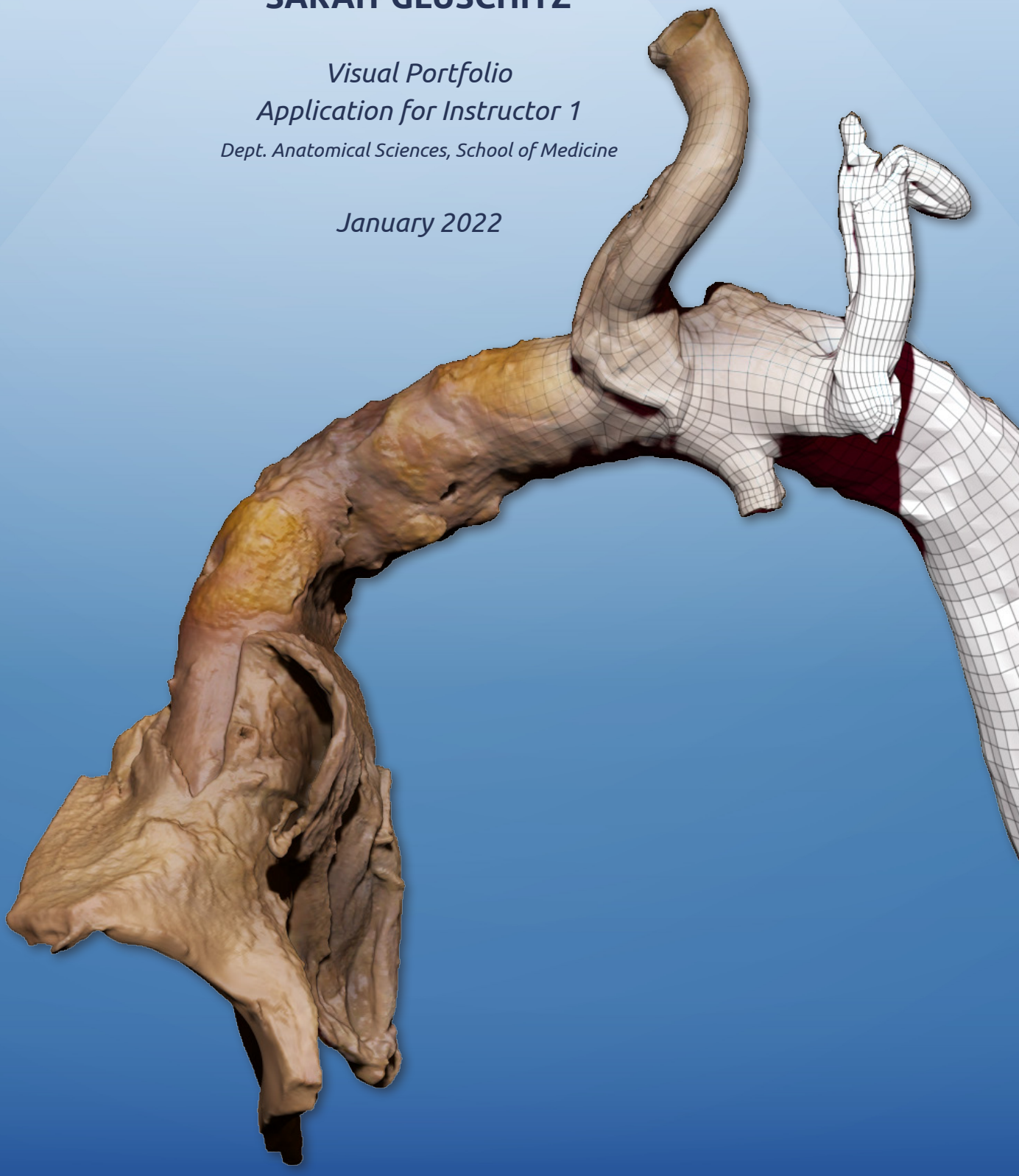
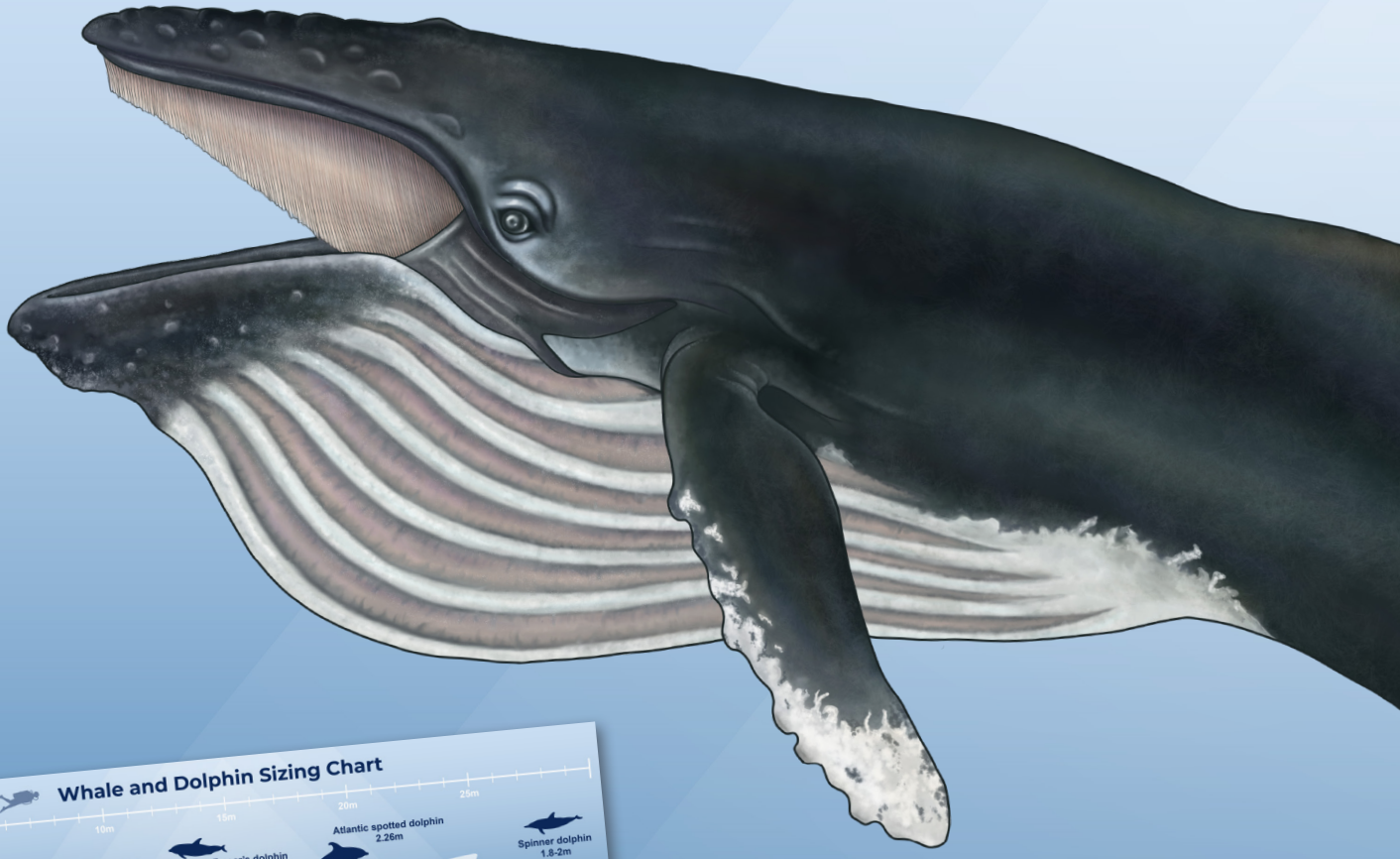
SARAH GLUSCHITZ

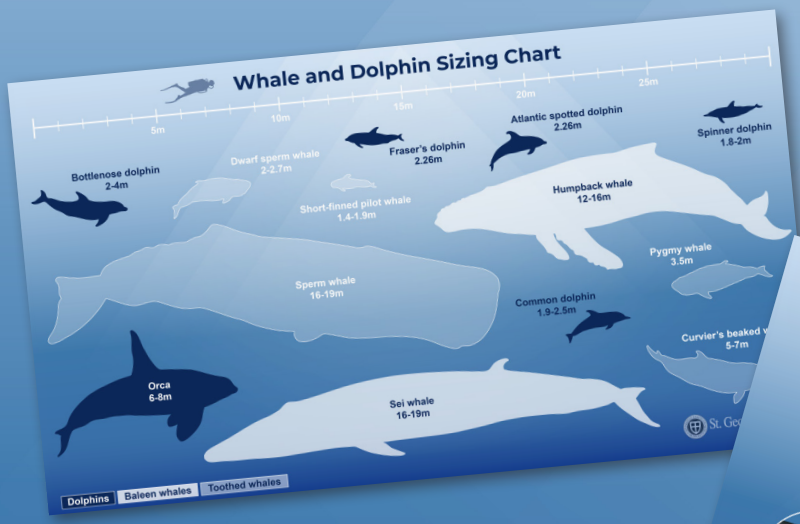
Visual Portfolio
Application for Instructor 1

Dept. Anatomical Sciences, School of Medicine

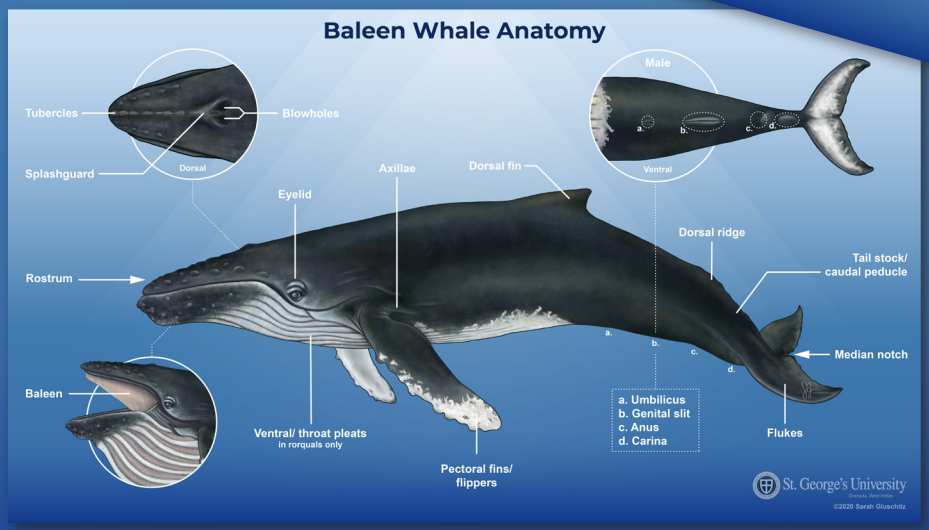
January 2022

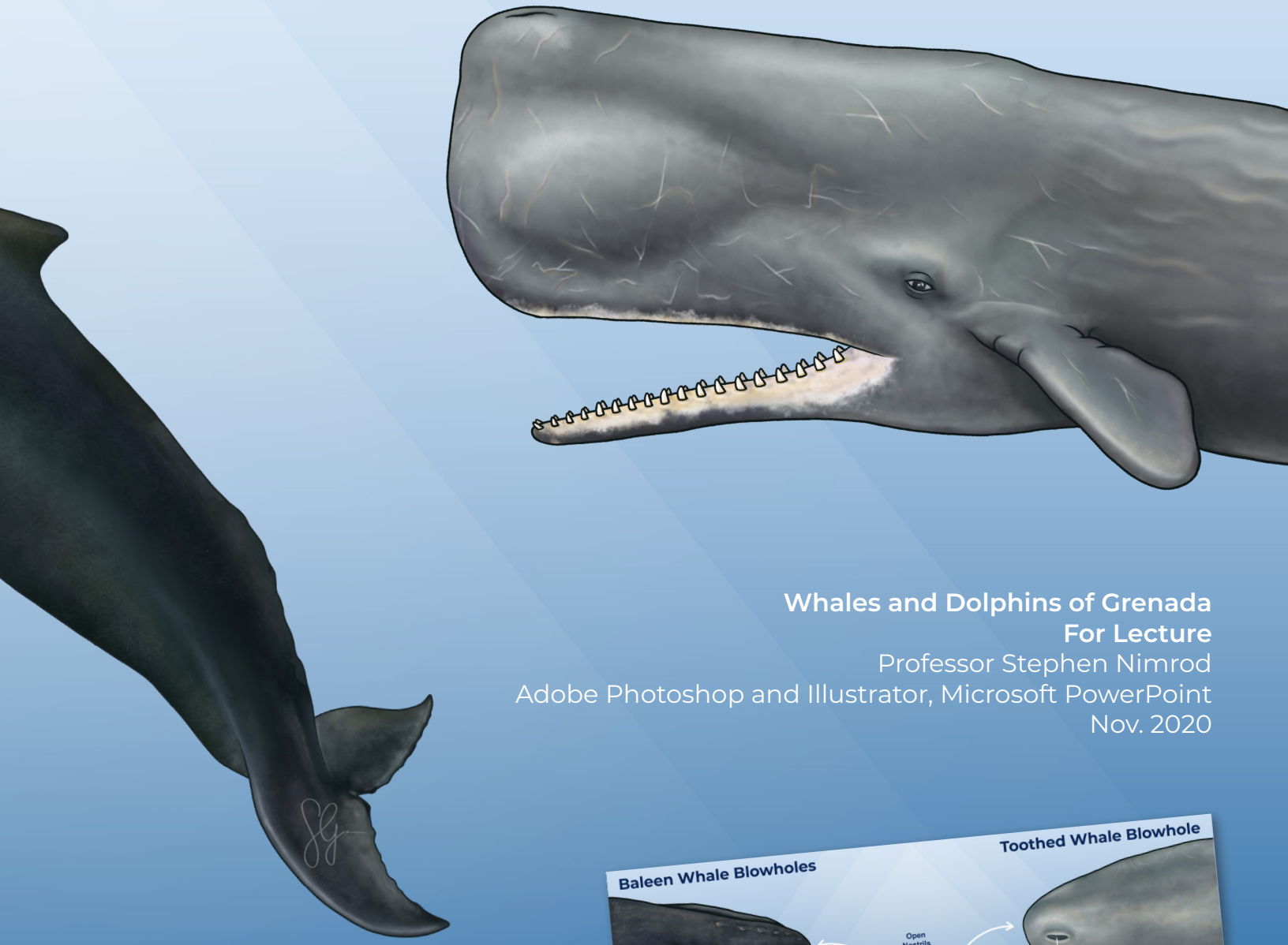




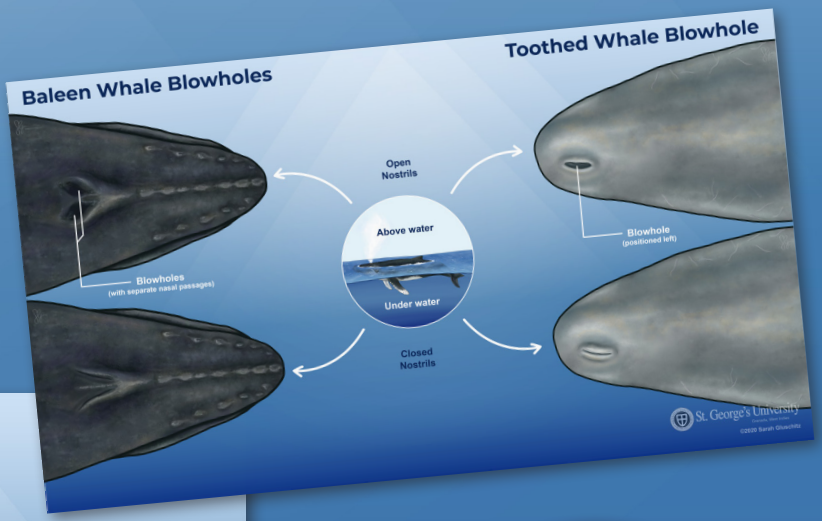

Whale and Dolphin Sizing Chart
5m
10m
15m
20m
25m
Bottlenose dolphin 2-4m
Dwarf sperm whale 2-2.7m
Fraser's dolphin 2.26m
Atlantic spotted dolphin 2.26m
Spinner dolphin 1.8-2m
Short-finned pilot whale 1.4-1.9m
Humpback whale 12-16m
Pygmy whale 3.5m
Sperm whale 16-19m
Common dolphin 1.9-2.5m
Curvier's beaked w 5-7m
Orca 6-8m
Sei whale 16-19m
Dolphins
Baleen whales
Toothed whales

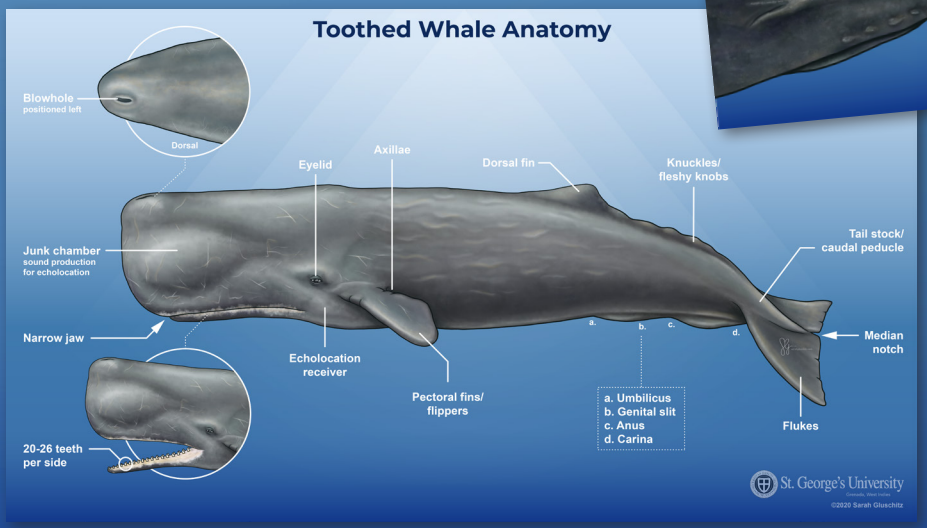

Whale Anatomy - Sexual dimorphism
Baleen Whales
Toothed Whales
105%
75%
100%
100%
Female
Male
Ventral
a. Umbilicus
b. Genital slit
b.' Mammary slit
c. Anus
d. Carina

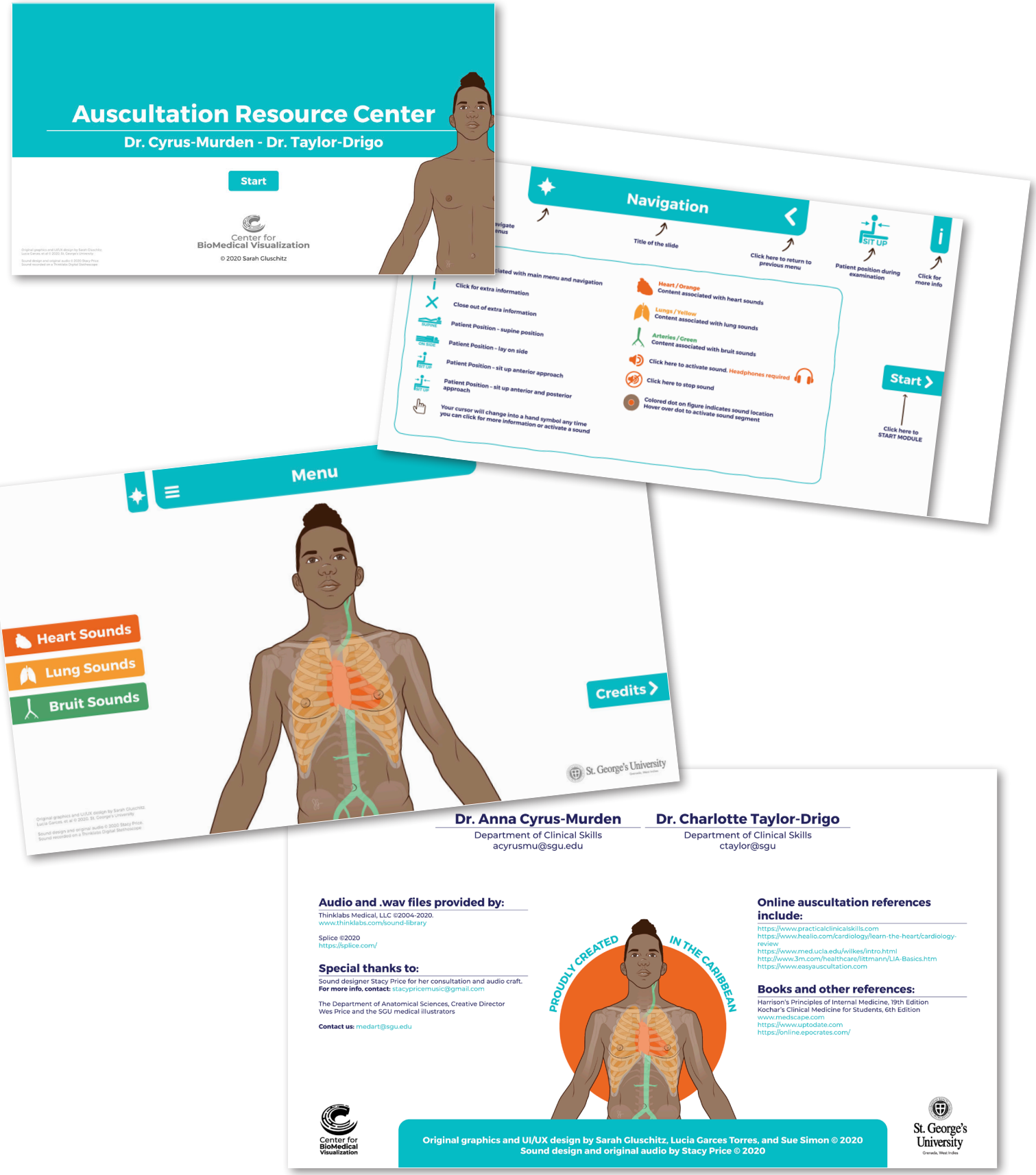

Baleen Whale Anatomy
Tubercles
Blowholes
Splashguard
Dorsal
Male
Ventral
Axillae
Dorsal fin
Eyelid
Dorsal ridge
Tail stock/ caudal peduncle
Rostrum
Median notch
Baleen
Ventral/ throat pleats
in rorquals only
Pectoral fins/ flippers
Flukes
a. Umbilicus
b. Genital slit
c. Anus
d. Carina
St. George's University
©2020 Sarah Gluschitz



Whales and Dolphins of Grenada
For Lecture
Professor Stephen Nimrod
Adobe Photoshop and Illustrator, Microsoft PowerPoint
Nov. 2020



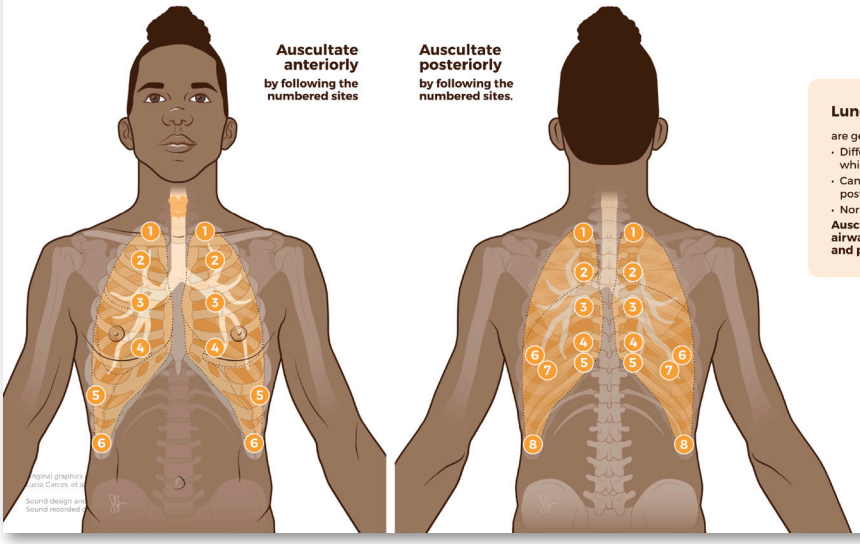




Auscultation Resource Center
For Lecture
Drs. Cyrus-Murden and Taylor-Drigo in Collab. with L. Garces, S. Simon and C. Price
Layout, Design and Illustrations, Adobe Illustrator and InDesign
Aug. - Sep. 2020 **bit.ly/Auscultation**

Auscultation Sites

SIT UP



Lung sounds or breath sounds

are generated within the lungs.

- Differs from transmitted voice sounds, which are generated by the larynx.
- Can be auscultated across the anterior and posterior chest walls with a stethoscope.
- Normally heard over the trachea.

Auscultation of lungs help determine the airway and alveolar integrity, ventilation and presence of abnormality.

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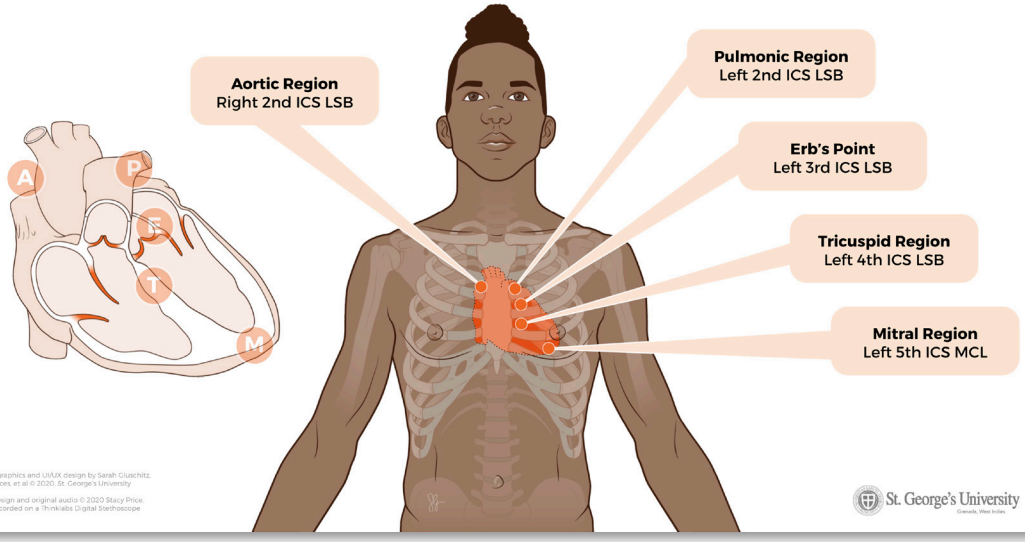
Auscultation Sites



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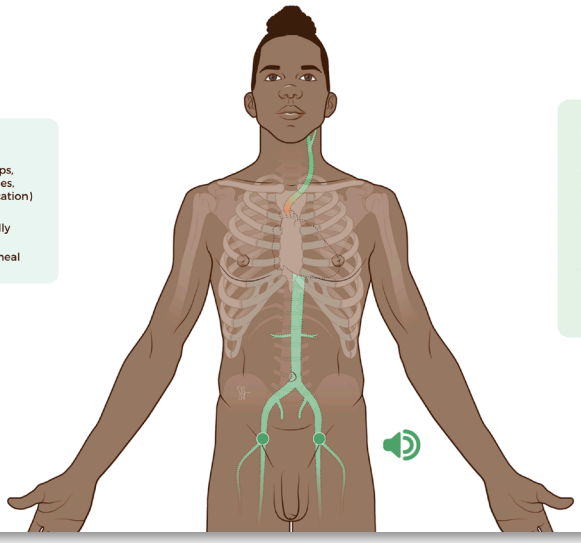
Femoral Bruit

SUPINE

Presentation

- Painful cramping in one or both of your hips, thighs, or calf muscles after certain activities, such as walking or climbing stairs (claudication)
- Leg numbness or weakness
- Coldness in your lower leg or foot, especially when compared to the other side
- Sores on your toes, feet or legs that won't heal



Risk Factors

- Age 48 to 80 years
- Smoking
- Hypertension
- Hyperlipidemia
- Insulin resistance
- Diabetes
- Obesity
- Sedentary lifestyle
- Family history of atherosclerosis, either coronary artery disease or carotid artery disease

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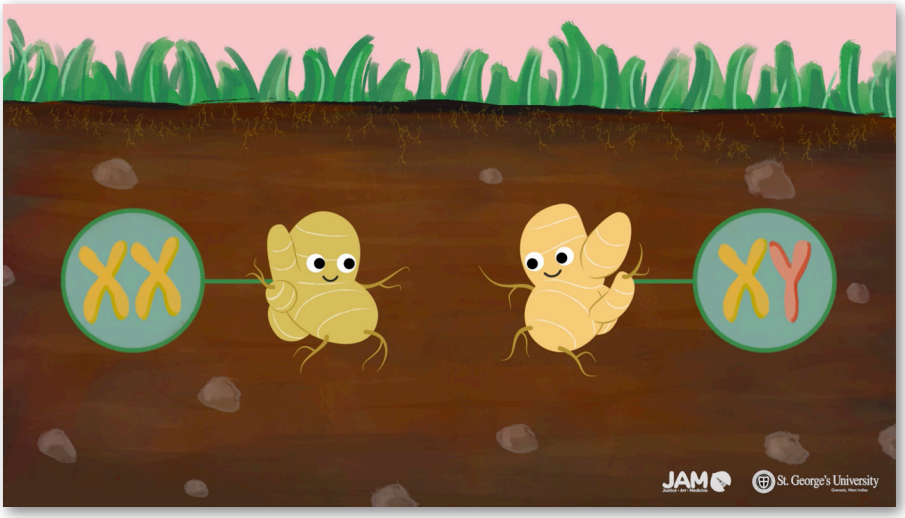


◀Background painting and Animation

◀Background painting and Animation

◀Background painting and Animation

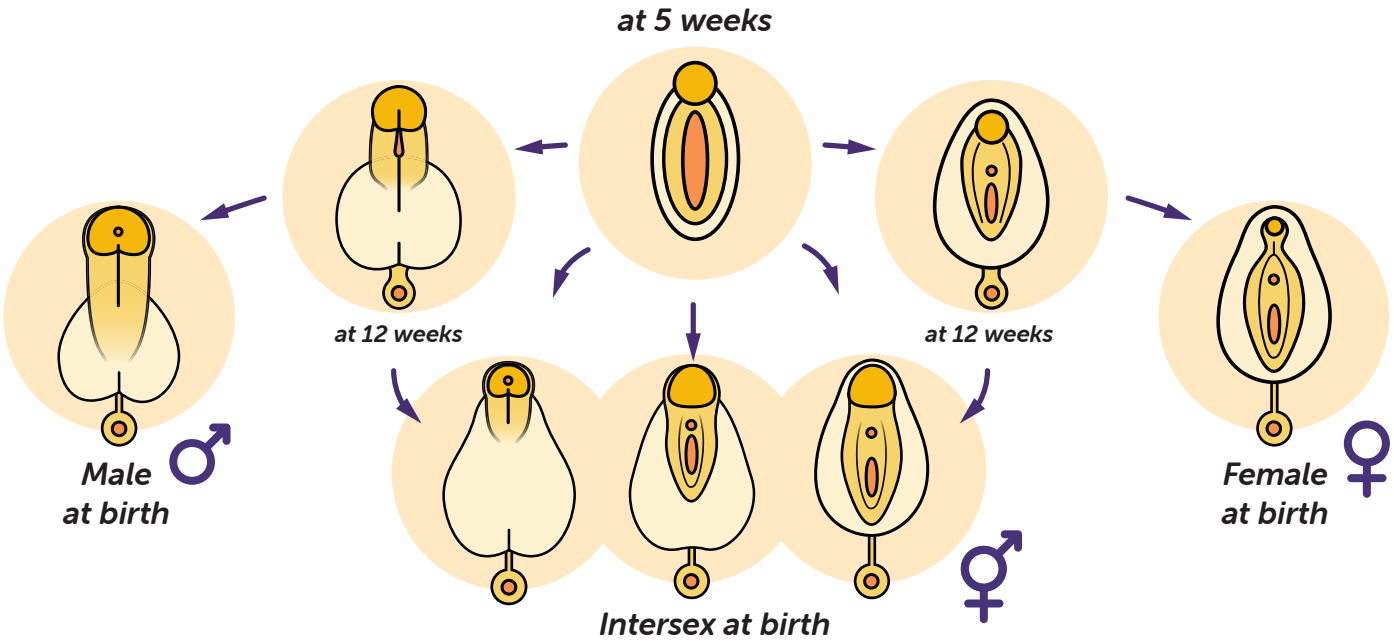
and more...

Gender Roots
Animation - LGBTQIA+ Awareness Campaign
Character Illustrations by L. Garces, F. Khan, Adobe Illustrator
Background Illustrations by N. Lekach, S. Gluschitz, Adobe Photoshop
Animation by N. Lekach, S. Gluschitz, Adobe AfterEffects and Premiere

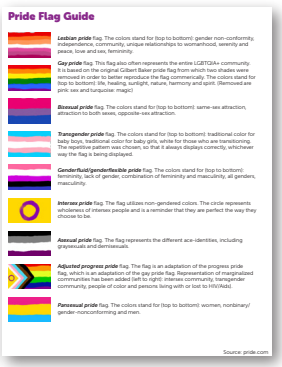
Project Management by S. Gluschitz, please view Credits for more Details
Apr. - Oct. 2021 **bit.ly/Gender_Roots**

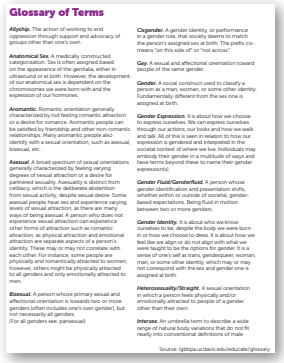
External Genital Characteristics

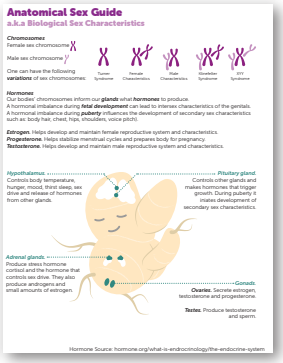
At 5 weeks during the fetal development genitals start to differentiate into female, male or intersex.

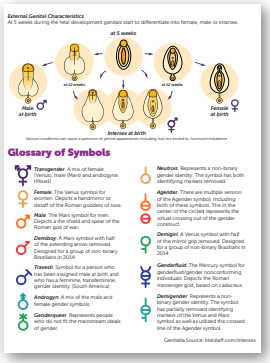


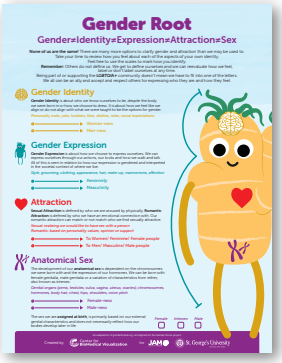
Various conditions can cause a spectrum of genital appearances including, but not limited to, hormone imbalance.





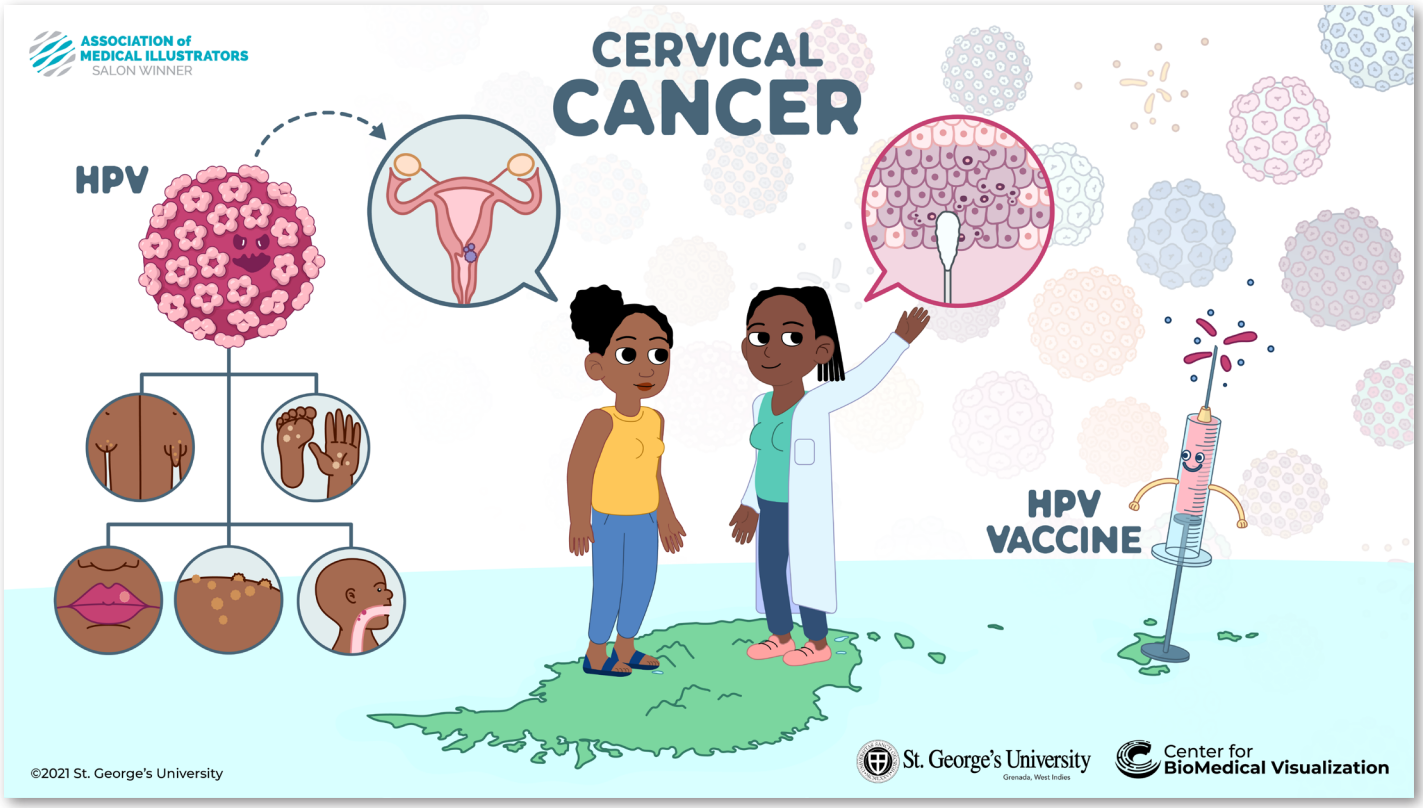






Gender Roots - the making of (excerpt)
LGBTQIA+ Awareness Campaign
Character Illustrations by L. Garces, F. Khan, Adobe Illustrator
Background Illustrations by N. Lekach, S. Gluschitz, Adobe Photoshop

Layout, Design and above Illustrations, S. Gluschitz, Adobe InDesign, Adobe Illustrator
Sept. 2021 **bit.ly/Gender_Roots_booklet**

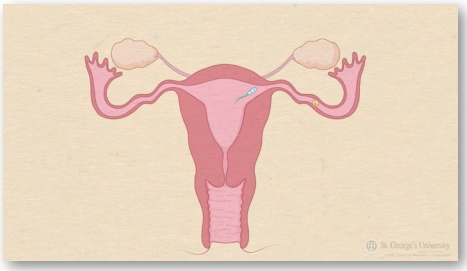


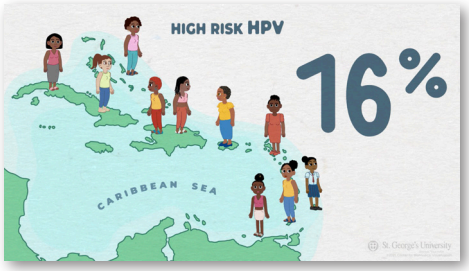
▲

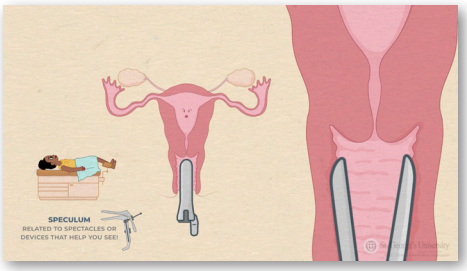
AMI Salon 2021, Award of Merit

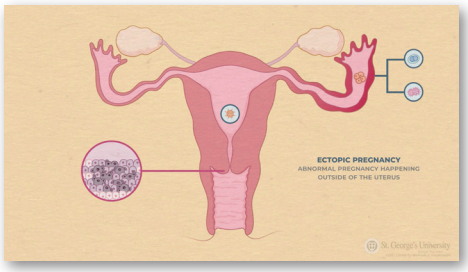
Animation

▼







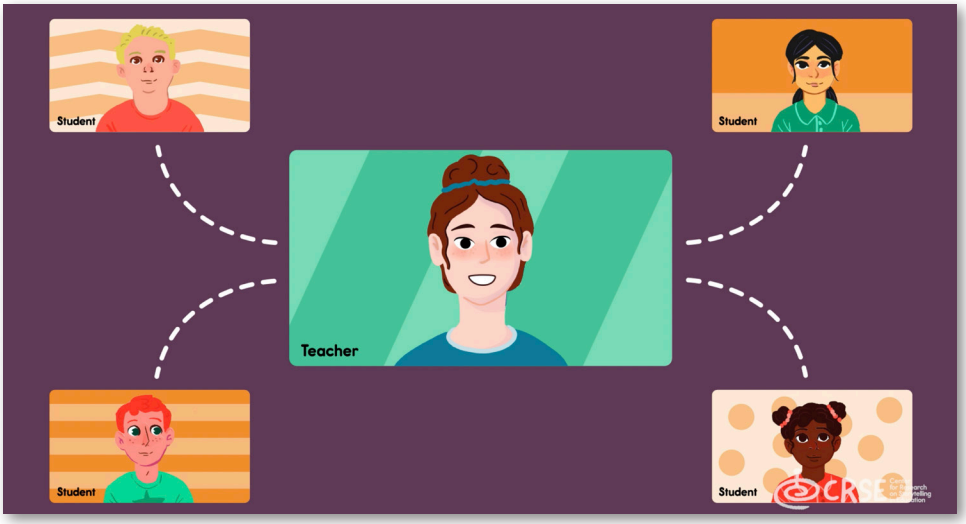


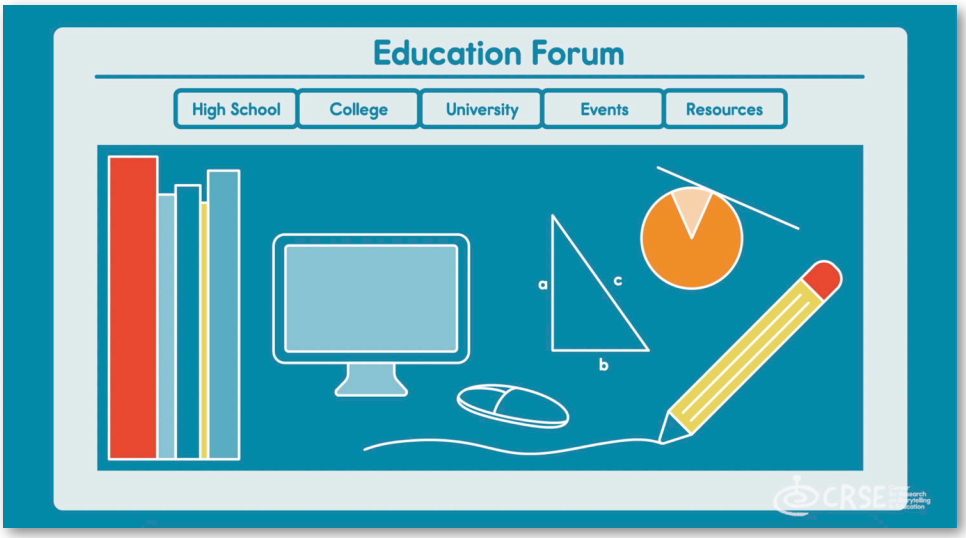
and more...

Cervical Cancer
Public Health Awareness Campaign
Character Illustrations by L. Garces, C. Carceles Roman, Adobe Illustrator
Animation by N. Lekach, S. Gluschitz, Adobe AfterEffects and Premiere
Jan. - Apr. 2021 **bit.ly/Cervical_Cancer_SGU | bit.ly/SGU_Cervical_Cancer_Award**

◀Animation & Illustrations

Animation ▶



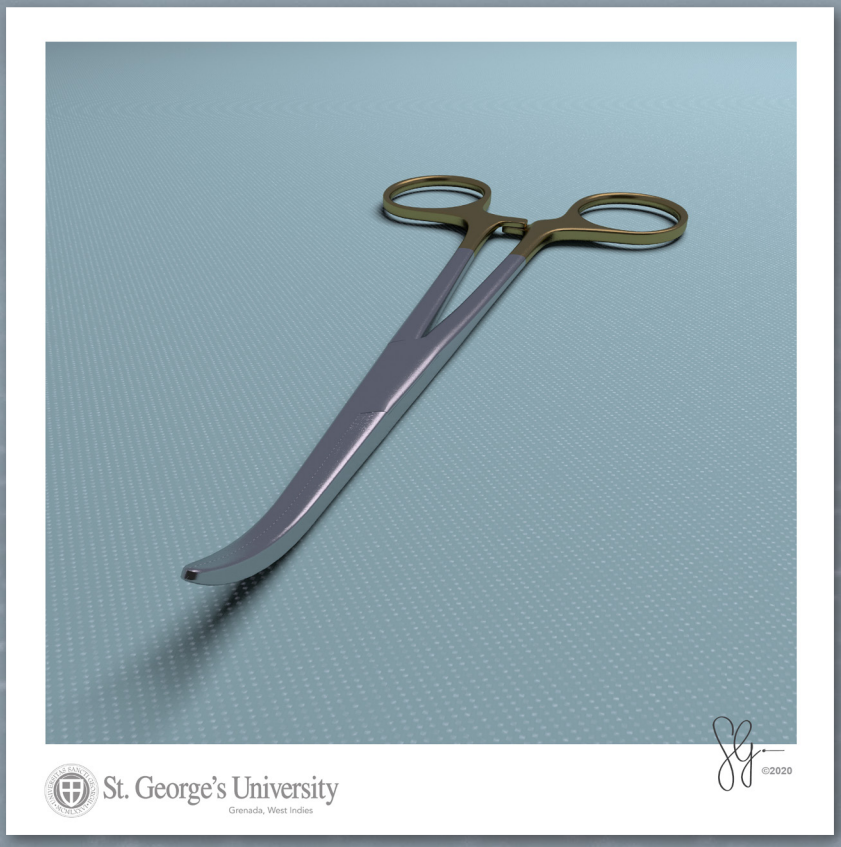


◀Animation & Illustrations

and more...

Center for Research on Storytelling in Education (CRSE)
Research Communication
Animation and Illustrations by N. Lekach, S. Gluschitz, Adobe AfterEffects and Premiere
Project Management by S.Gluschitz, please view Credits for more Details
Jun. 2021 **youtu.be/WJBauytAg0Q**

Hemostat
Workshop
Basics in Cinema4D by Jack Nelson
Cinema4D
Nov. 2020




St. George's University
Grenada, West Indies
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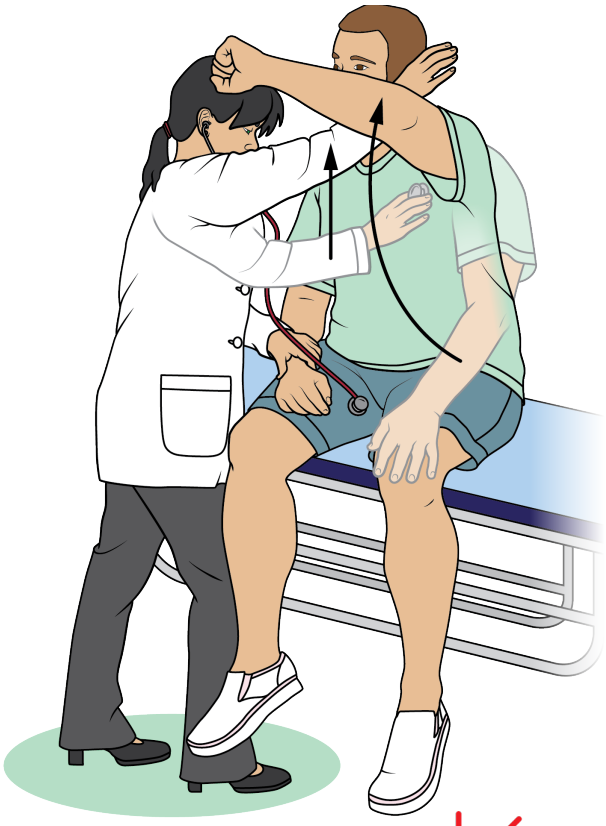
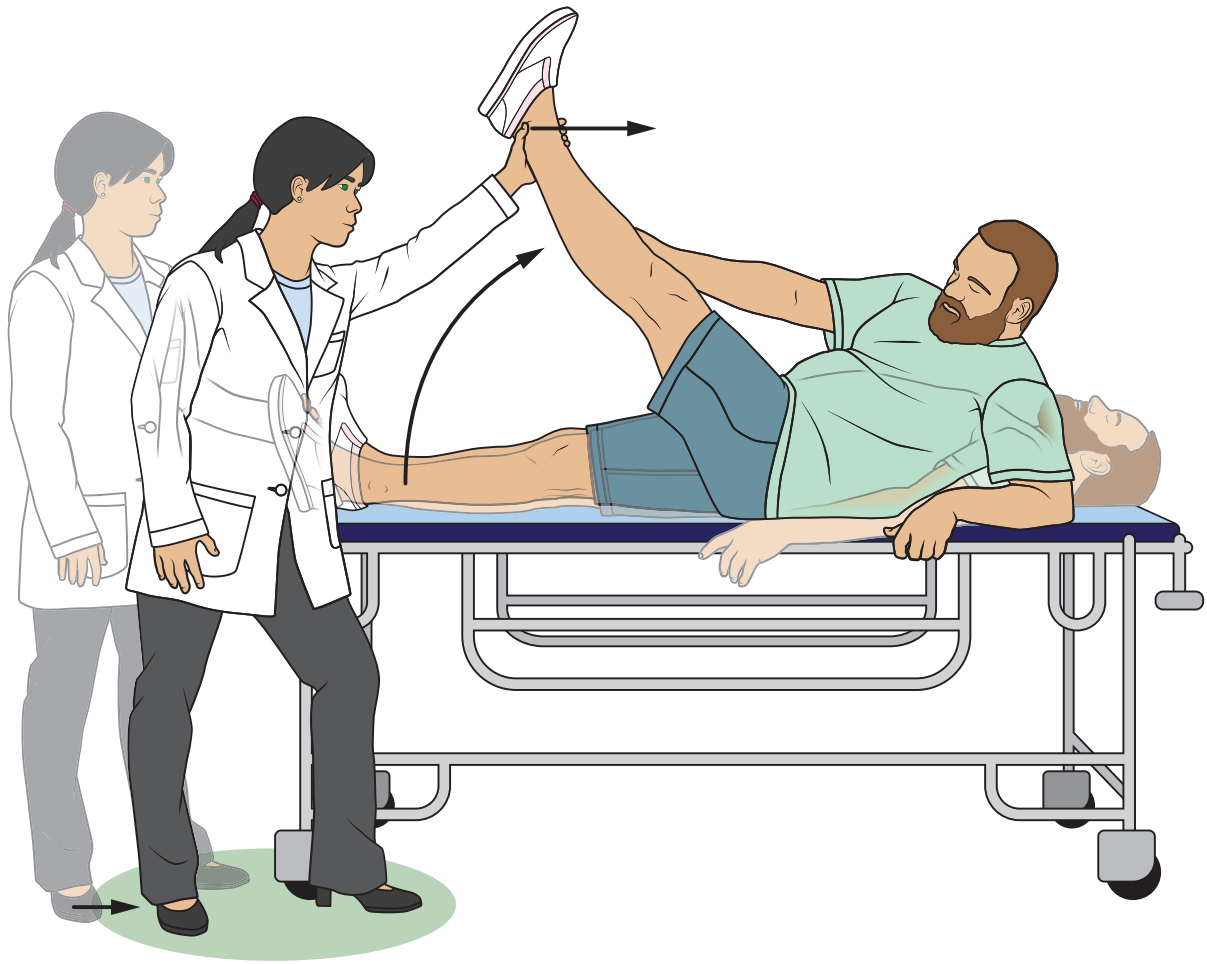
Poster De-Escalation Intuitive Safe Examination
For Publication (Newsletter) + Conference Poster
Paul Feliu, Sarah Gluschitz, Dr. Robert Hage
Photography, Adobe Illustrator
Oct. 2020 + Oct. 2021





DISE

DE-ESCALATION INTUITIVE SAFE EXAMINATION

St. George's University
Grenada, West Indies

Paul Feliu[1], Sarah Gluschitz[2], Robert Hage[2]

(1) St. George's University, School of Medicine,
(2) St. George's University, Dept. of Anatomical Sciences
Contact information: pfeliu@sgu.edu

DISE is an acronym born from the need for tools to **navigate** a growing violent and confrontational **healthcare system**. It is based on years of best practices put into use and geared towards **preventing**/minimizing near violent encounters and **surviving** the violent ones. **DISE** is taught a a two-part workshop.

PART 1
Learning to recognize an escalating situation by discussing verbal and non- verbal cues, that aid in de-escalation and assertive communication. A series of cases are used to illustrate good and poor techniques.

PART 2
Live demonstration of body positioning and total room awareness which can help to minimize injury/harm in the event of an attack.

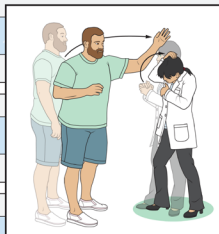
Safe Space
A safe space begins with positioning yourself in the most ideal place, while examining the patient. Several variants of noxious stimuli to awaken a patient while keeping yourself safe are shown. This includes identifying potential threatning direction of motion and staying clear of these paths.

As a last resort of protection a demonstration is given during the workshop on how the sleeve of the lab coat the provider is wearing can be used as a self-defense weapon to render an attacker unconscious as safely as possible.

Exam Room

HOSPITAL

Waiting Room

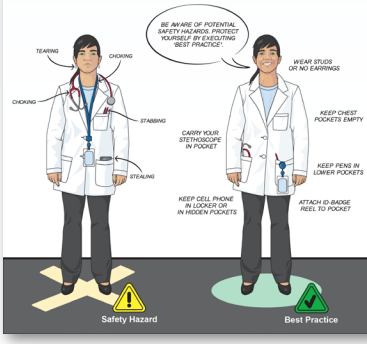


Talking to Patients
Be aware of your body language and tone of voice. Constantly review your personal space. Step back if needed, and use your arms for protection.

Keep your hands in front of your chest with the palms of your hands towards the patient or against each other. This is perceived as nonthreatening and enables you to block potential attacks.

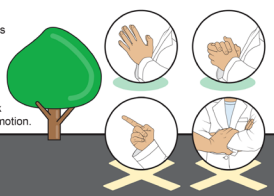
Pointing your finger at patients or crossing your arms can be seen as agression or defensiveness, both able to lead to escalation of the situation.

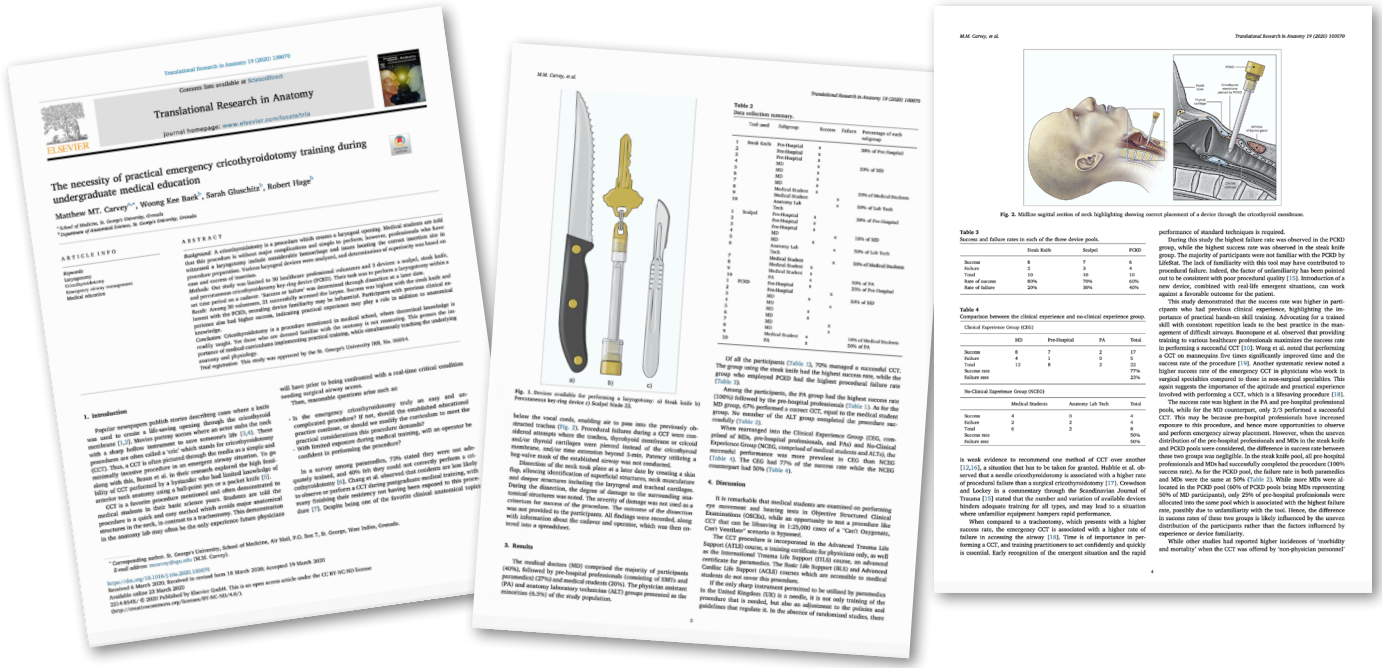
Posture



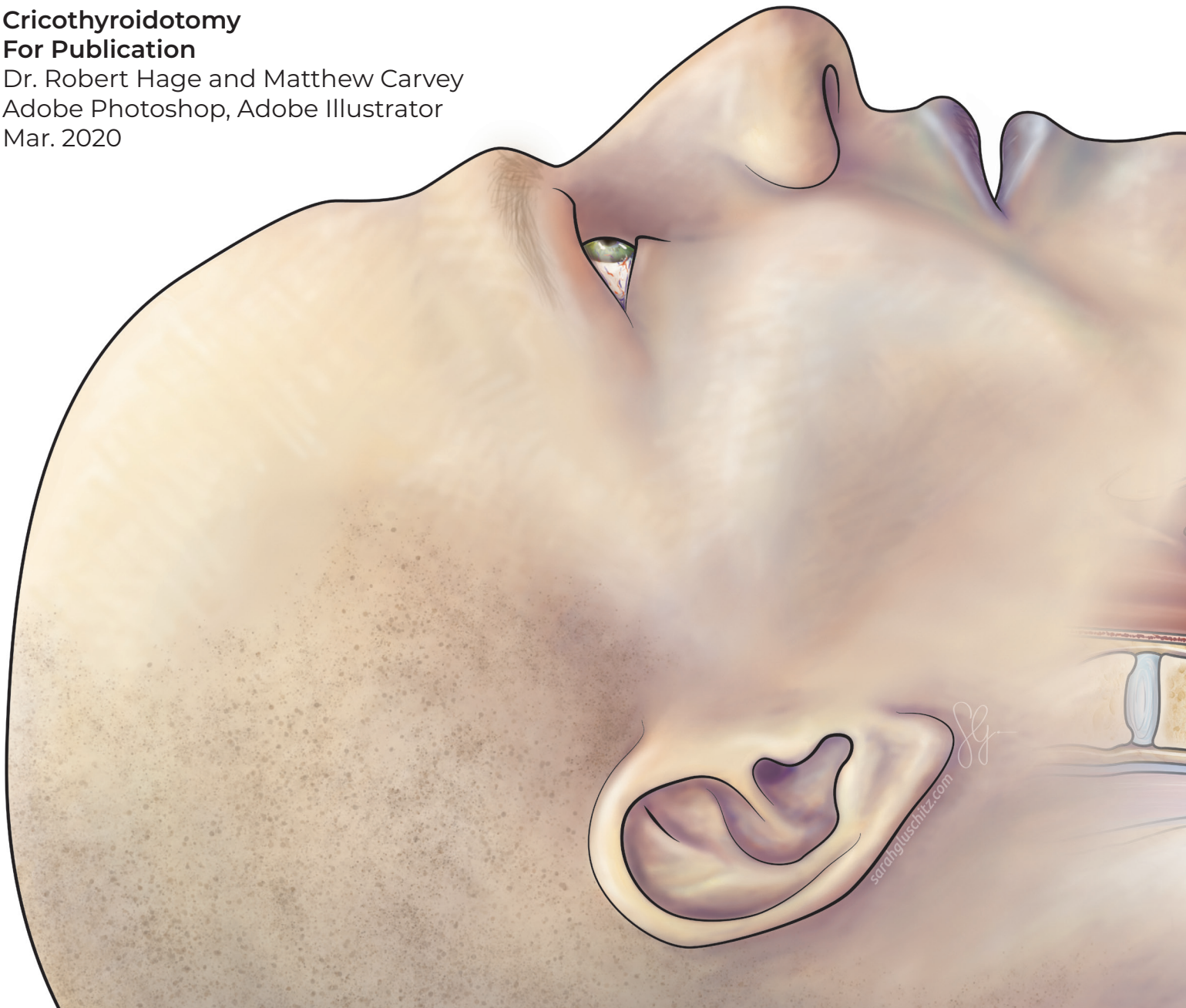
Confined Space / Ambulance

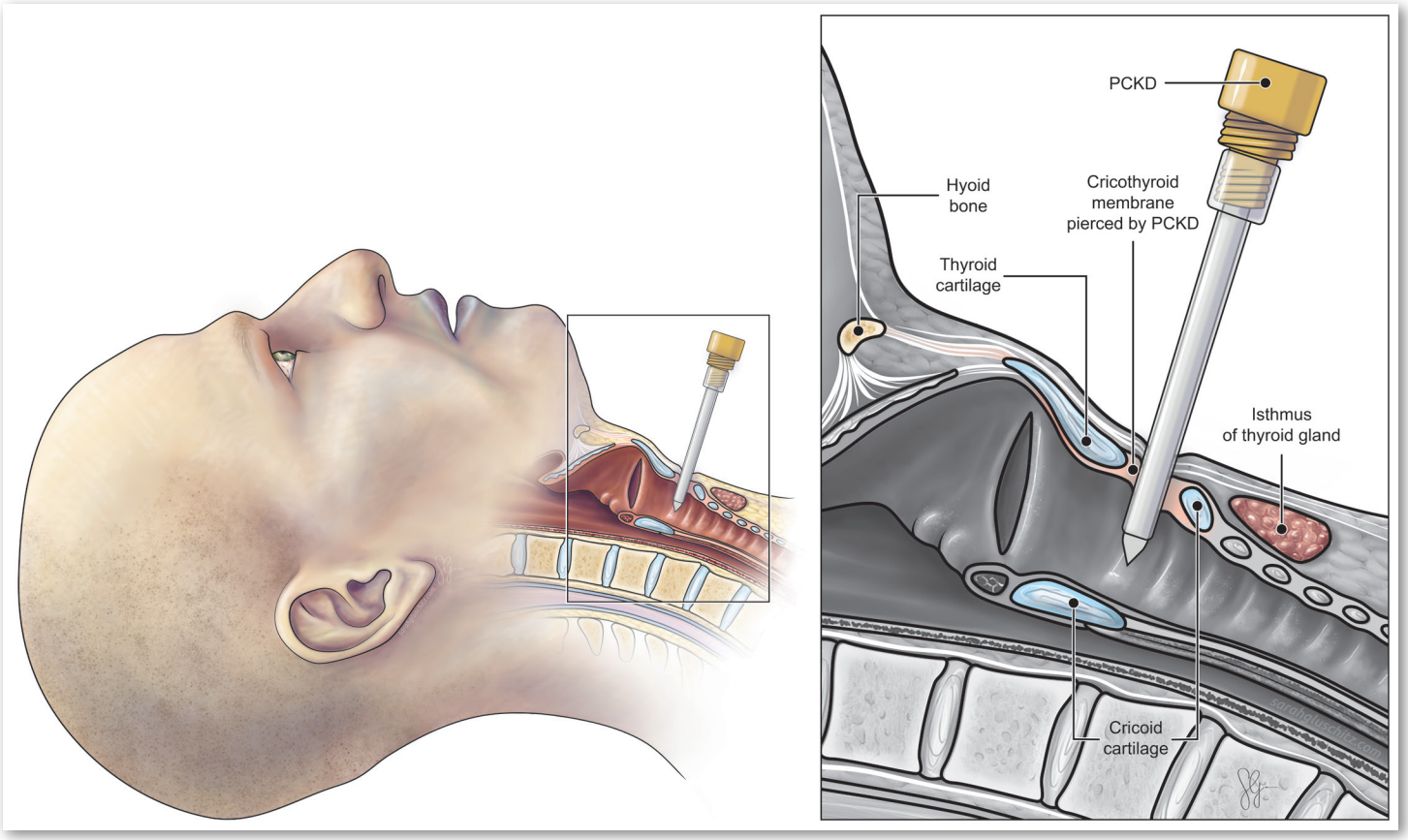
Heart Exam
During a heart, lung or abdominal evaluation, be sure to take precautions to better detect a possible patient outburst. Use your hand to feel the pulse on the patient's wrist and simultaneously control the arm. Press your leg against the patient's knee. This enables you to feel any sudden movements by the patient and be able to react promptly. During an examination of the back, press an arm against the shoulder or back of the patient to reduce their range of motion.

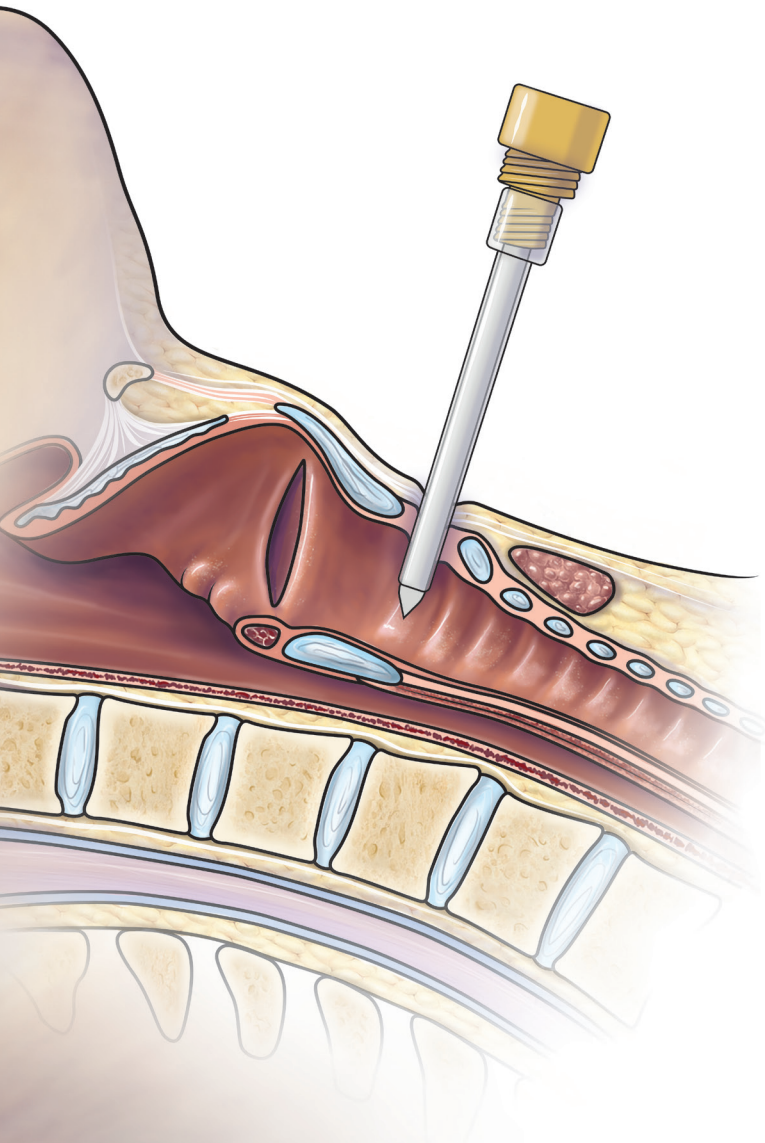


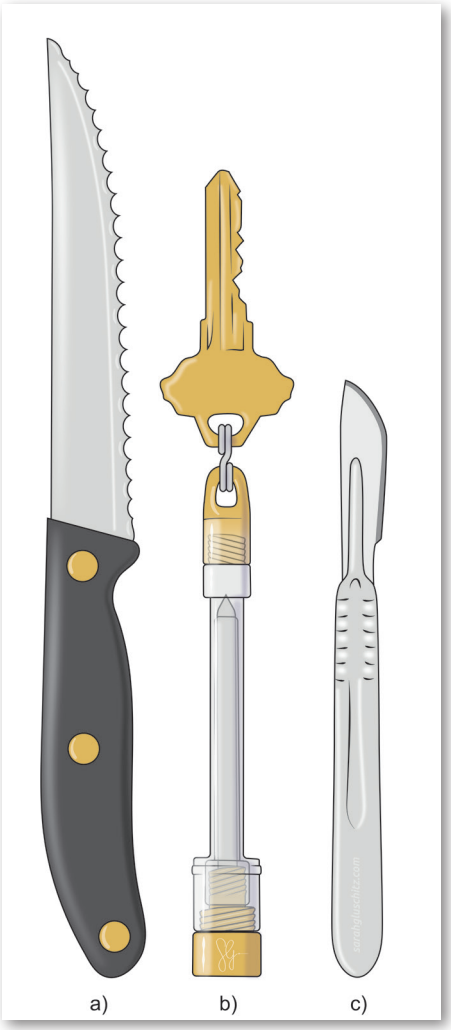


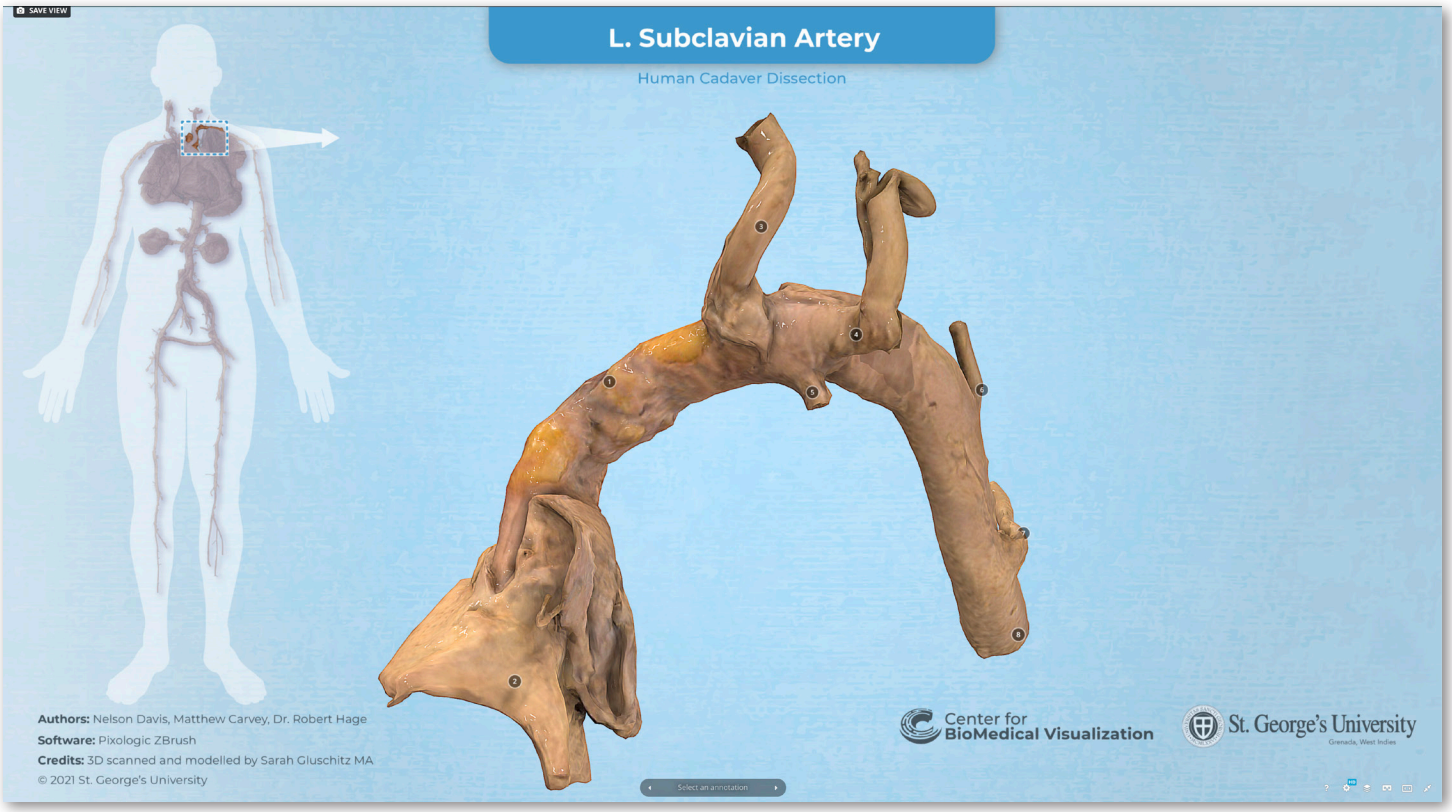
Cricothyroidotomy
For Publication
Dr. Robert Hage and Matthew Carvey
Adobe Photoshop, Adobe Illustrator
Mar. 2020



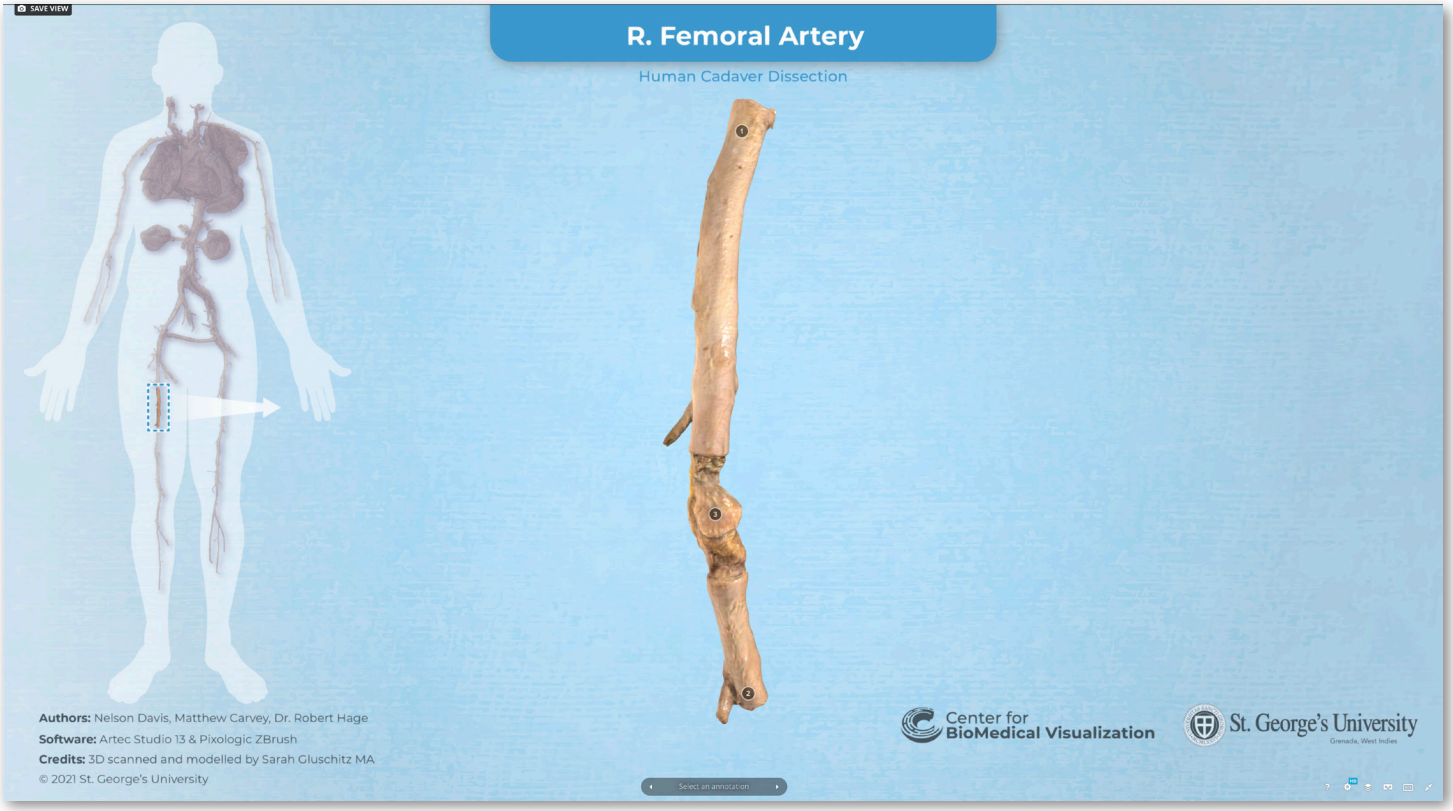

PCKD
Hyoid bone
Cricothyroid membrane pierced by PCKD
Thyroid cartilage
Isthmus of thyroid gland
Cricoid cartilage




a)
b)
c)

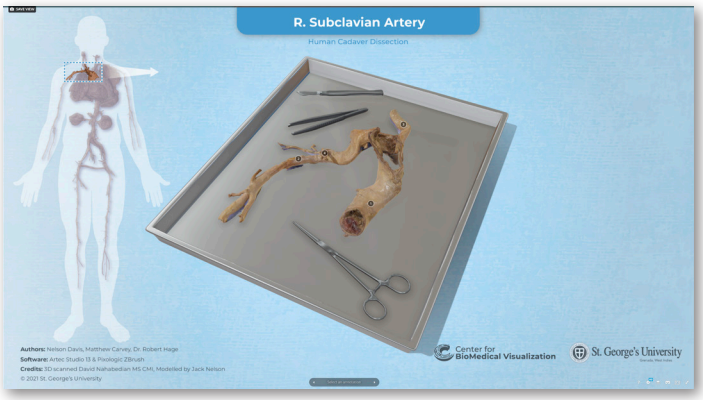


3D model Sarah Gluschitz

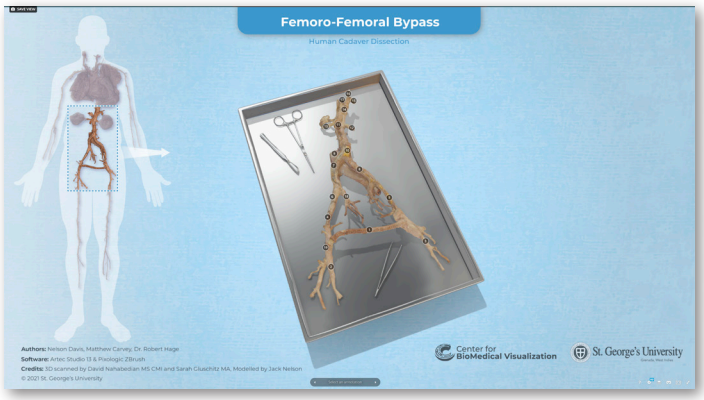


3D model Sarah Gluschitz

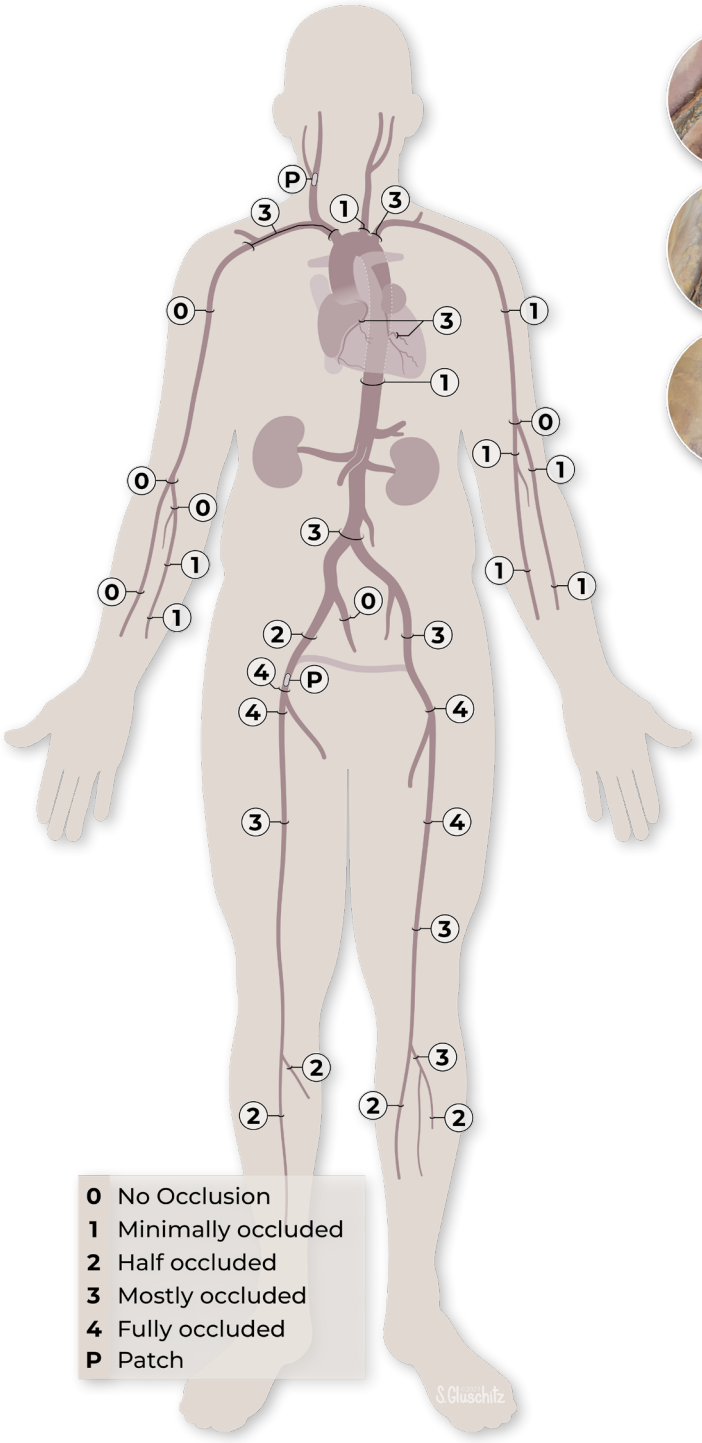
A Case of Femoro-Femoral Bypass
For Publication (Journal Article) and on Sketchfab.com
Nelson Davis, Matthew Carvey, Dr. Robert Hage in Collab. with J. Nelson and D. Nahabedian
Project Lead, Artec Laser Scanner, ZBrush, Adobe Photoshop and Illustrator
Mar. 2021 **bit.ly/L_Subclavian_Artery_Occlusion | bit.ly/R_Femoral_Artery_Occlusion**



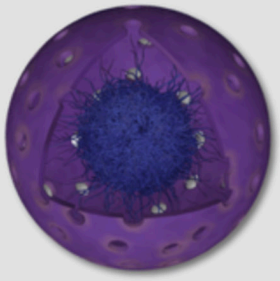
3D model Jack Nelson



3D model Jack Nelson

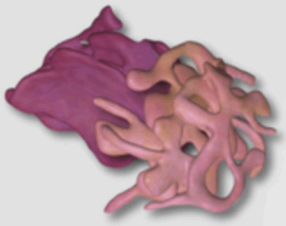


Eukaryote



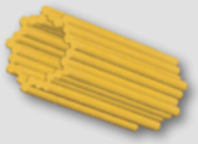
Nucleolus
2.5 µm

Nucleus
7 µm



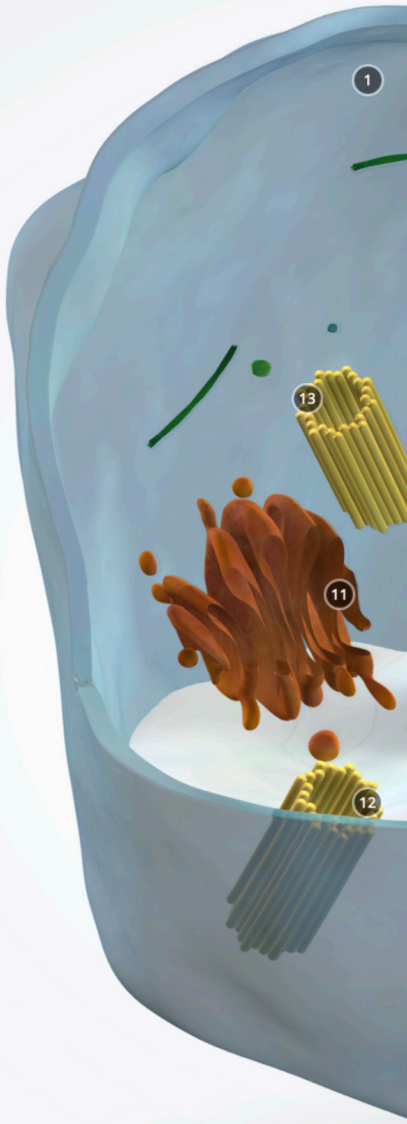
Smooth and Rough
Endoplasmic Reticulum
30 - 50 µm
0.2 µm / each layer

Golgi complex
7 µm / each layer



Centriole
150 - 250 µm length

Mitochondria
1 x 3 µm

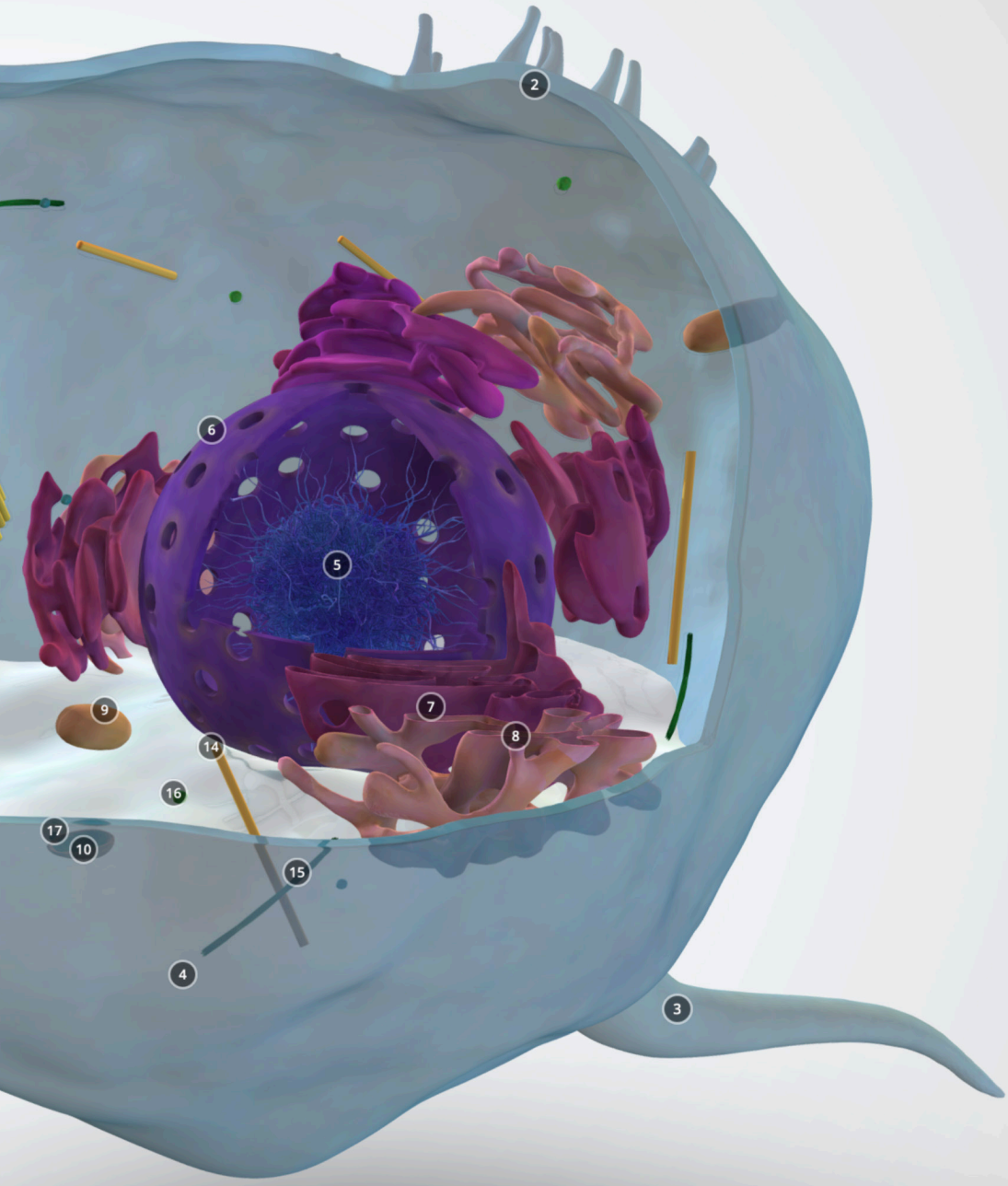


Software: Pixologic ZBrush

Author: Sarah Gluschitz MA

Eukaryote - Animal Cell
Workshop
Basics in Pixologic ZBrush by Andrew Swift and Quade Paul
Pixologic ZBrush
Apr. 2019 **skfb.ly/6Rn9U**

- Animal Cell



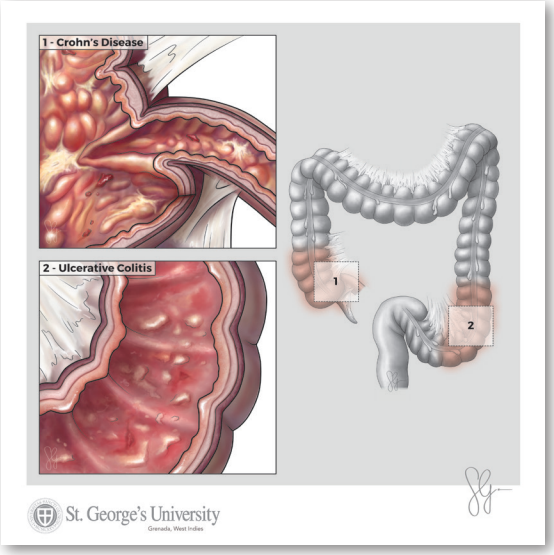
Center for BioMedical Visualization

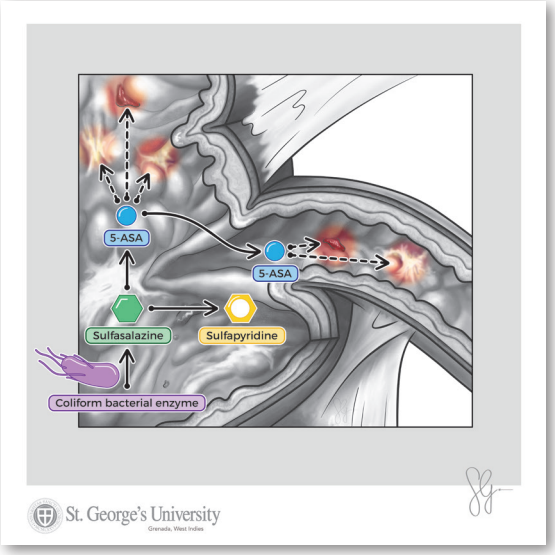
St. George's University
Grenada, West Indies

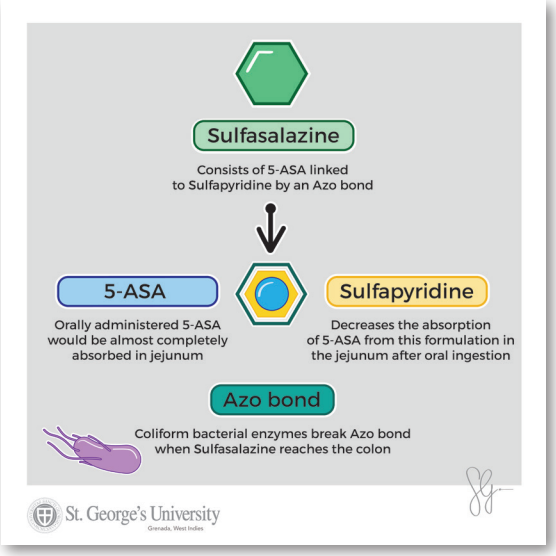
▲

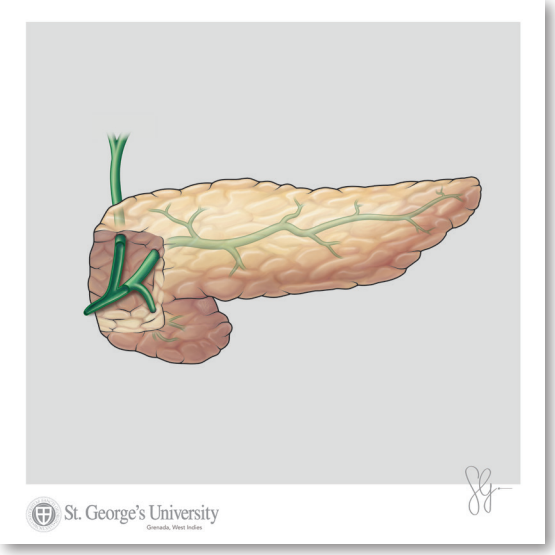
Most viewed on the sketchfab.com account
The Center for BioMdical Visualization at SGU

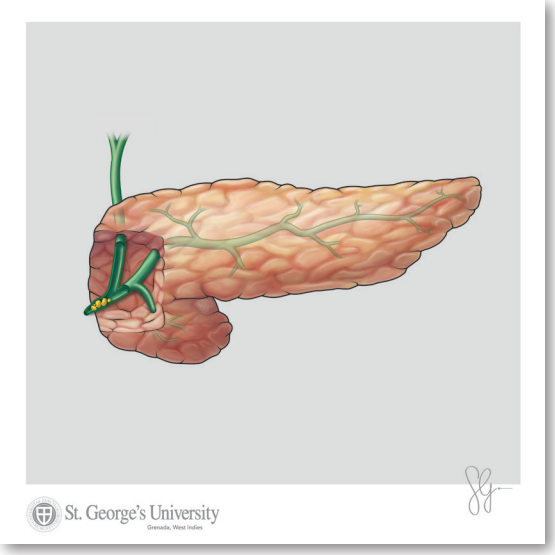
19,6k views



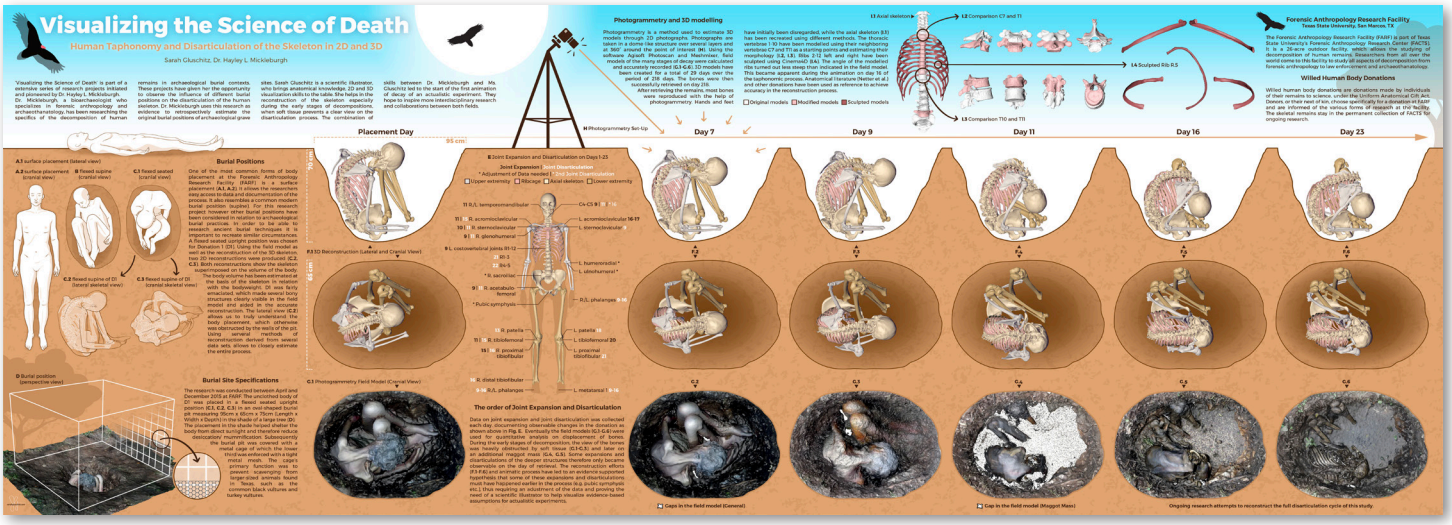




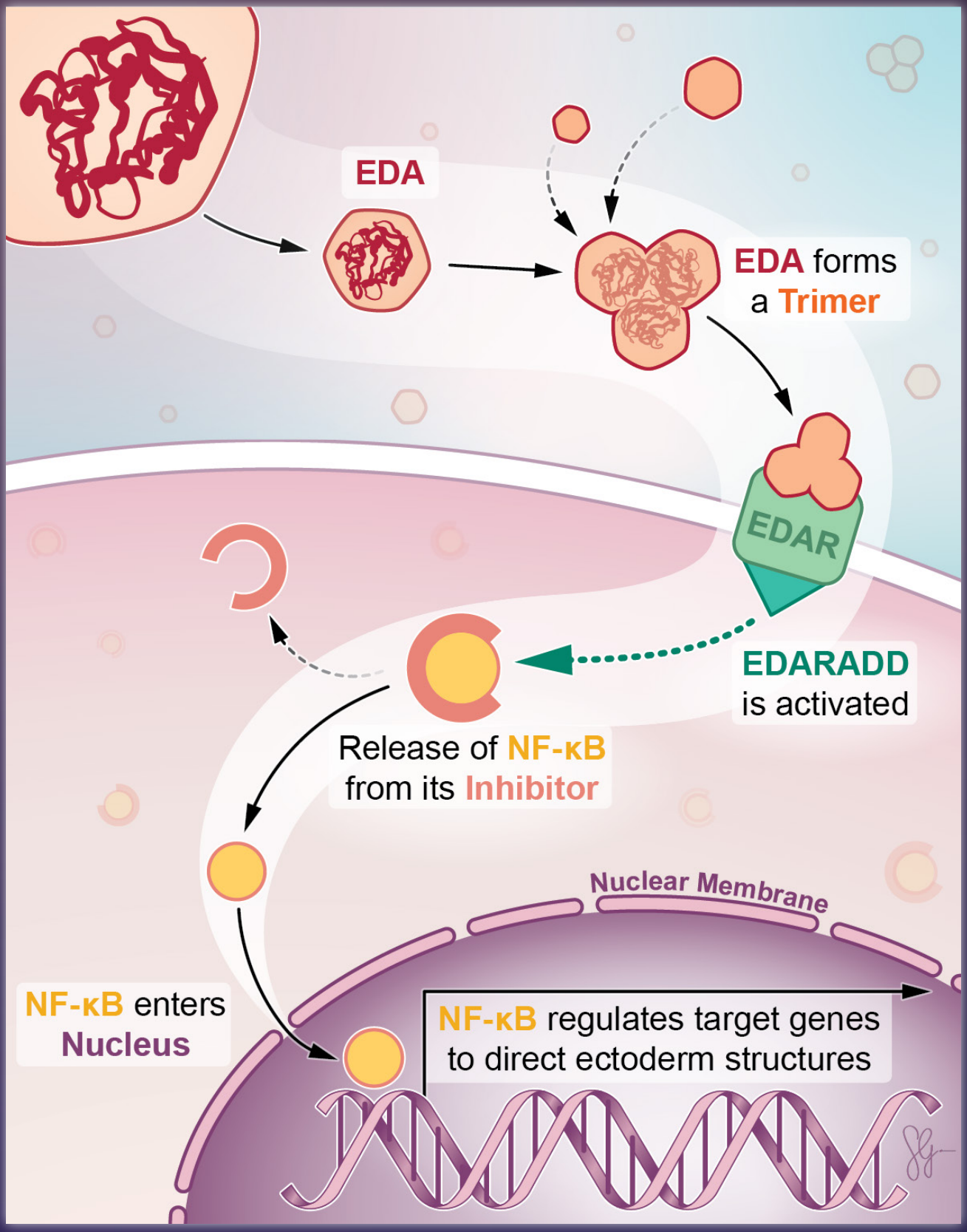




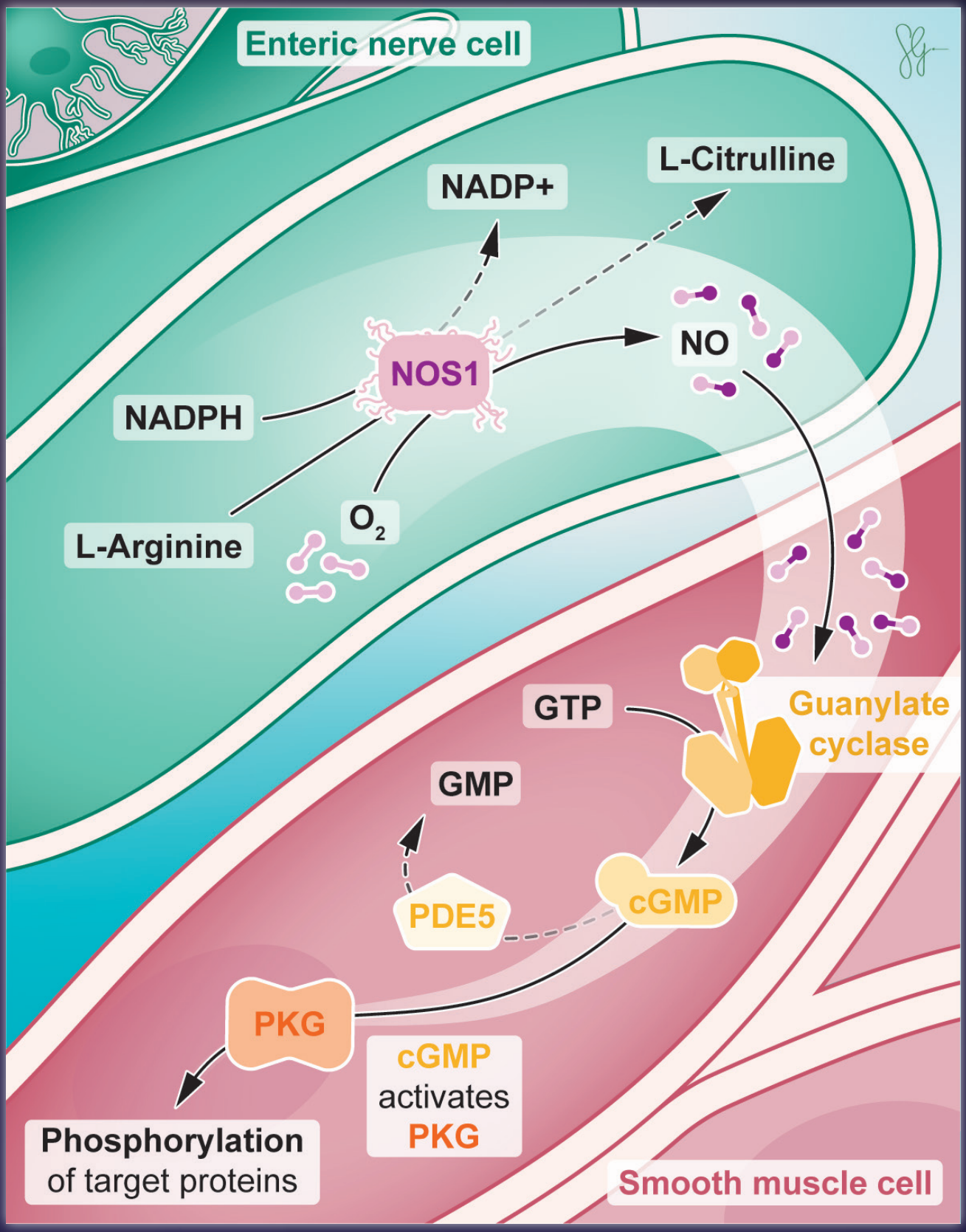
Bowel and Pancreas Illustration For Lecture
Adobe Photoshop and Illustrator
Apr. 2020



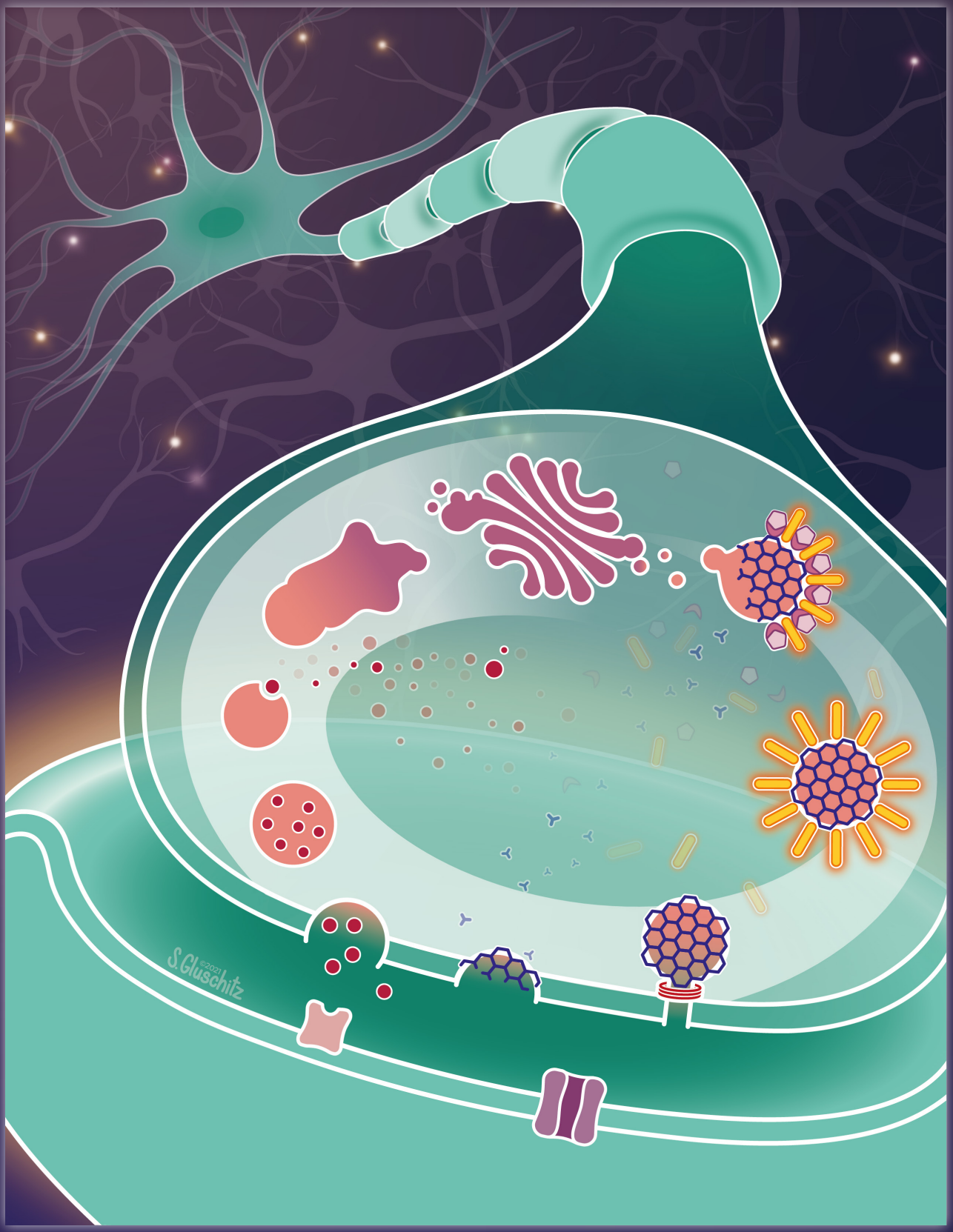
Poster and Presentation AMI Webinar Series 2020
Online Webinar
Cinema4D, Adobe Photoshop and Illustrator, Microsoft PowerPoint
Sep. 2020



HED Pathway
For Publication and Classroom
Dr. Andrew Sobering
Adobe Illustrator, Microsoft PowerPoint
Aug. 2020

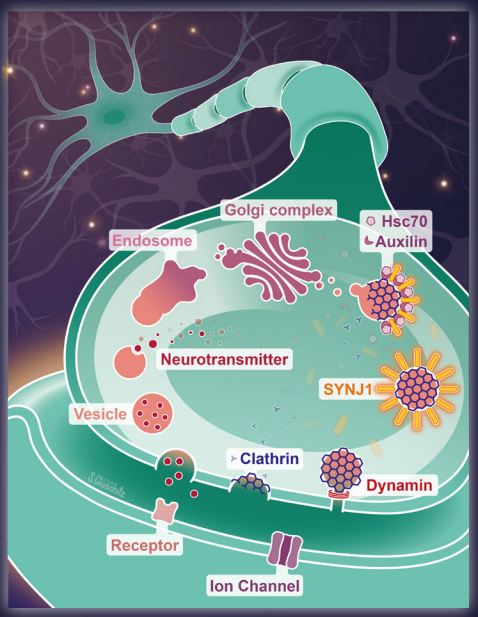


NOS Activation Pathway
For Publication and Classroom
Dr. Andrew Sobering
Adobe Illustrator, Microsoft PowerPoint
Sep. 2020

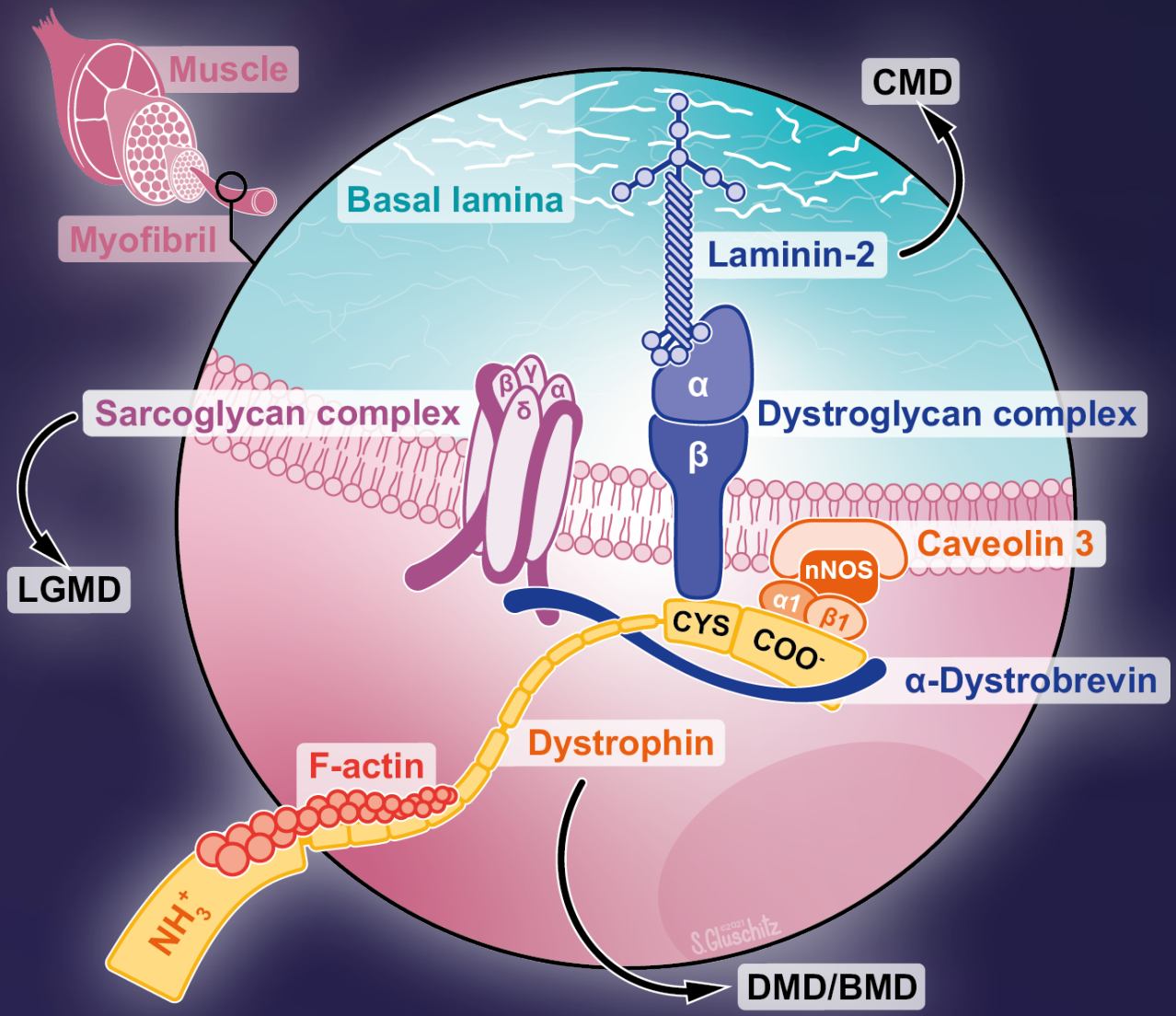


SYNJ-1 Pathway
For Publication and Classroom (Cover Proposal)
Dr. Andrew Sobering
Adobe Illustrator, Microsoft PowerPoint
Jan. 2021

SYNJ-1-Pathway ▶
For Publication and Classroom (Graphical Abstract)
Dr. Andrew Sobering
Adobe Illustrator, Microsoft PowerPoint
Jan. 2021



▼DMD-Dystrophin
For Publication and Classroom (Graphical Abstract)
Dr. Andrew Sobering
Adobe Illustrator, Microsoft PowerPoint
Dec. 2020




www.nature.com/natmachintell / January 2021 Vol. 3 No. 1
nature machine intelligence
Learning visual appearance for flight control
S. Gluschitz

Volume 3

No. 1 **January 2021**

Learning visual appearance for flight control

Flying insects show impressive skills in navigation and piloting, including landing and avoiding obstacles,...

Volume 3 Issue 1, January 2021

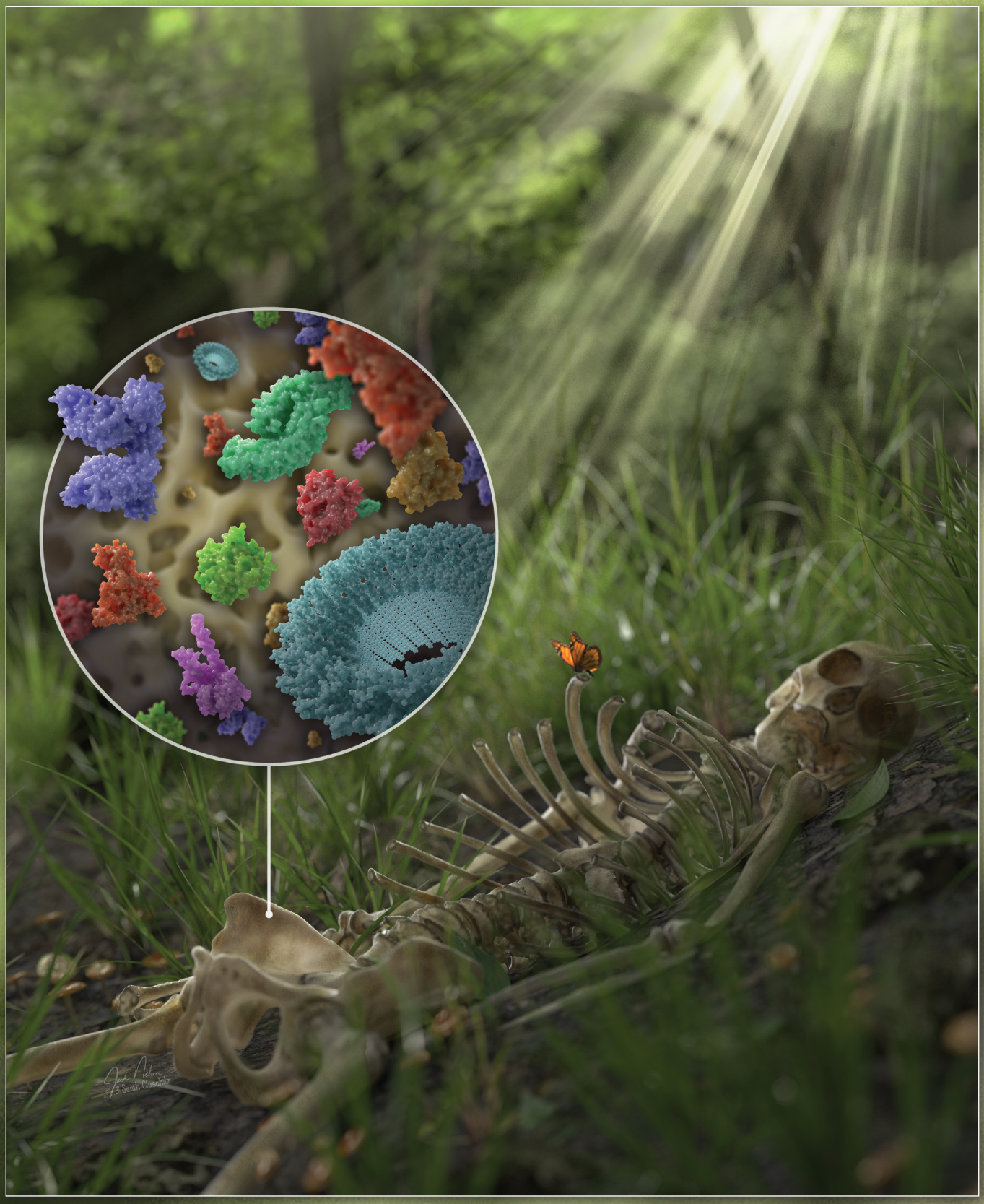
Learning visual appearance for flight control

Flying insects show impressive skills in navigation and piloting, including landing and avoiding obstacles, which roboticists try to mimic in the design of lightweight flying robots. The visual cue of optical flow is known to play a major role in insect navigation and is increasingly studied for use by small flying robots as well. However, there are gaps in the current understanding of optical flow control, as it cannot disentangle distance from velocity, and is less informative in the forward flight direction. In this issue, De Croon et al. propose a solution that consists of a learning process in which the robot first uses optical flow and self-induced oscillations to perceive distances to objects in its environment. It then learns a mapping from visual appearance to these distances to complement optical flow, solving the above-mentioned problems. The approach, which is biologically plausible in terms of processing, sensing, and actuation requirements, is demonstrated on a flying robot.

See De Croon et al. show less

Image: Sarah Gluschitz. Cover design: Lauren Heslop.

Visual Appearance for Flight Control
For Publication (Cover Illustration)
Dr. Guido De Croon
Cinema4D, Adobe Photoshop and Illustrator
Dec. 2020 - Jan. 2021



Bone Proteins in Decomposing Human Remains
For Publication (Cover Illustration)
Drs. Hayley L. Mickleburgh and Noemi Procopio in Collab. with J. Nelson
Art Direction and Design, Cinema4D (Skeleton), Adobe Photoshop and Illustrator
Mar. 2021

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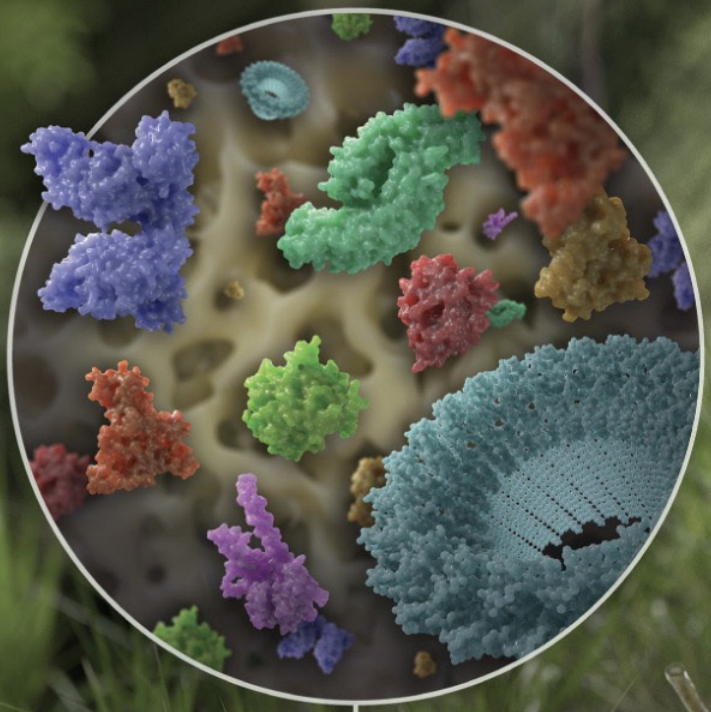
Journal of proteome research

Volume XX Number XX pubs.acs.org/jpr



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R. Anterior Leg Dissection - Femoral Triangle
Dissections for Wet Lab Sessions

Abdominal Wall Dissection ▶
Dissections for Wet Lab Sessions
Window to expose layers of abdominal muscles

External oblique m. ▶

Transverse m.

▶ Internal oblique m.

Ongoing dissections throughout my time at St. George's Universities

◀ Lower Limb Dissection