PORTFOLIO

Biomedical Art

2025_12

김회인

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2025	인천가톨릭대학교 대학원 바이오메디컬아트 전공 재학 중
2024	가천대학교 조소과 졸업

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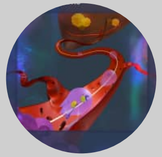

4.저널커버

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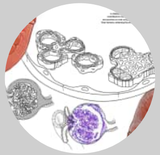


6.조직학

1.라인드로잉

겨드랑동맥

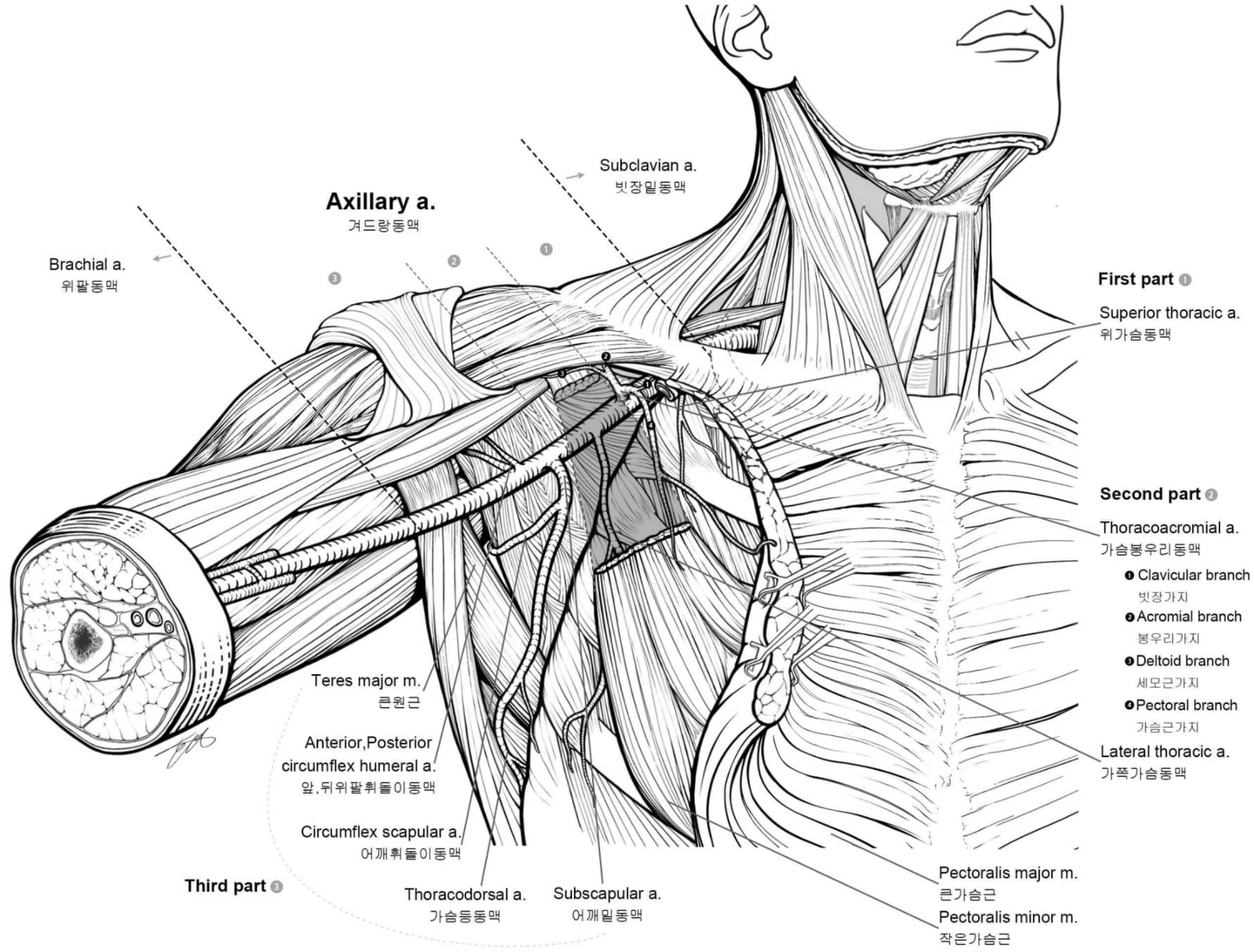
이 작업은 빗장밑동맥이 첫째갈비뼈 가쪽경계를 지나 겨드랑동맥으로 이름이 바뀌고
이어서 큰원근의 아래경계를 지나 위팔동맥으로 명칭이 바뀌는 기준점을 한눈에 이해하기 쉽게 했습니다.

또한 작은가슴근을 기준으로 겨드랑동맥을 1부, 2부, 3부로 구분하여, 하나의 동맥이 해부학적 경계 구조물을 지날때마다 명칭과 구간이 어떻게 달라지는지 보다 이해하기 쉽게 보여주고자 합니다.

제작년도 2025

프로그램 Procreate, Photoshop

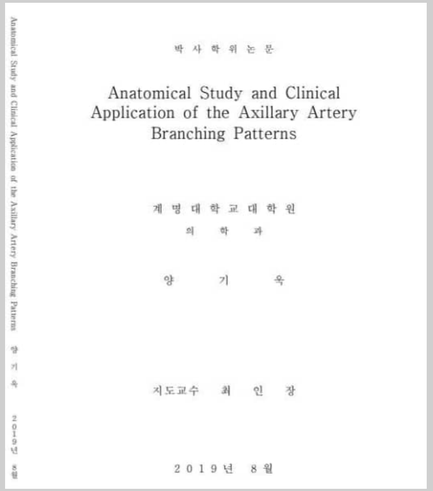
작품크기 210mm * 280mm



1.라인드로잉

겨드랑동맥

레퍼런스, 기획



박 사 학 위 논 문

Anatomical Study and Clinical Application of the Axillary Artery Branching Patterns

계 명 대 학 교 대 학 원
의 학 과

양 기 옥

지도교수 최 인 장

2019년 8월

계명대학교 의학과의 2019년 양기옥박사님의 박사학위논문으로 겨드랑 동맥의 변이를 해부를 통해 보여주었습니다.

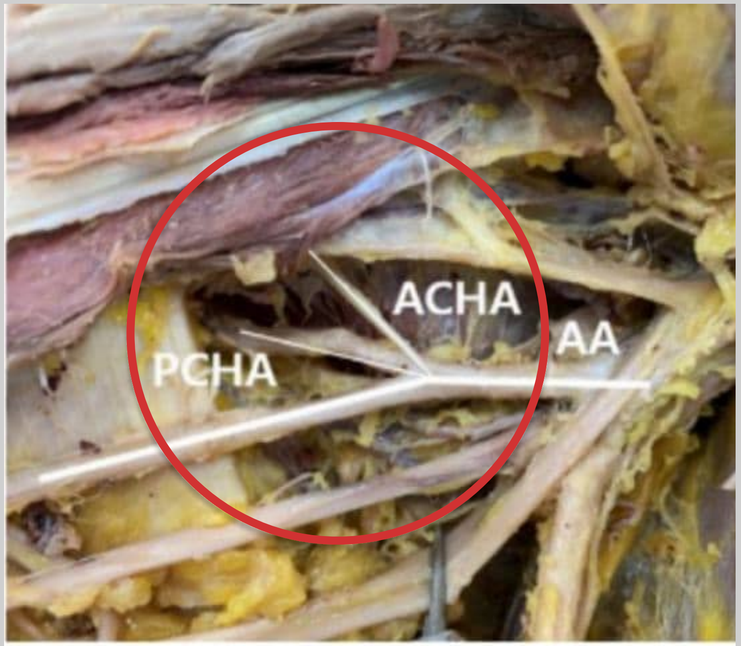


그림 10. ACHA는 오른쪽에 있는 PCHA와 함께 분기되었습니다.

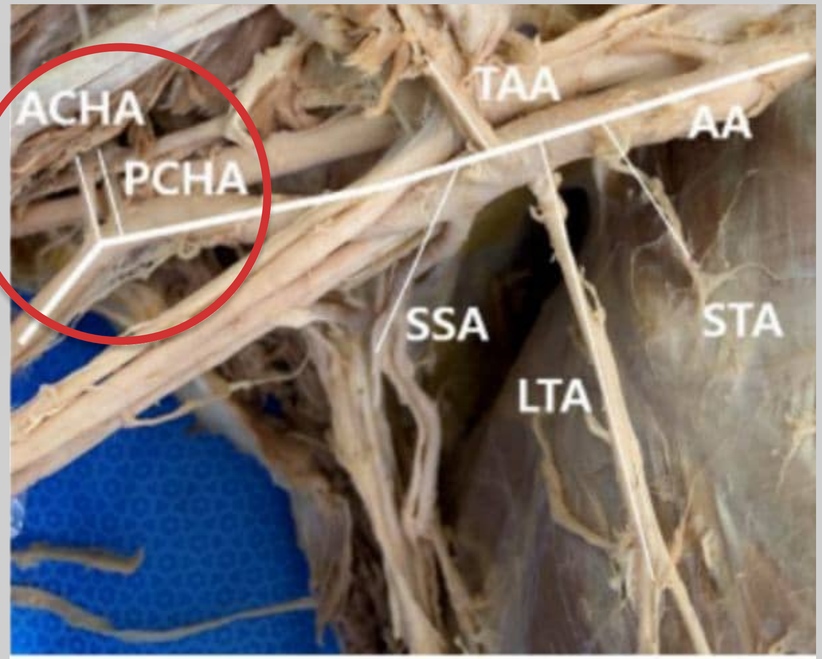


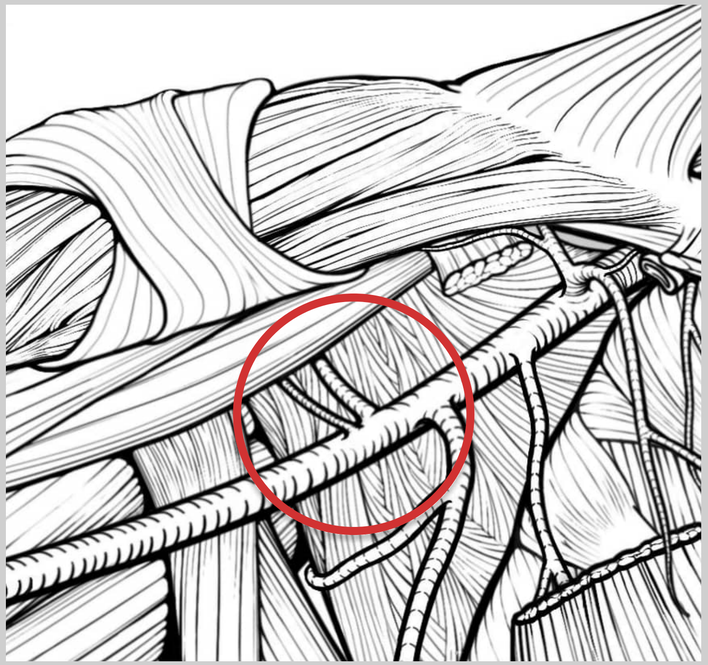
그림 8. 오른쪽에 변화가 없는 겨드랑이 동맥.

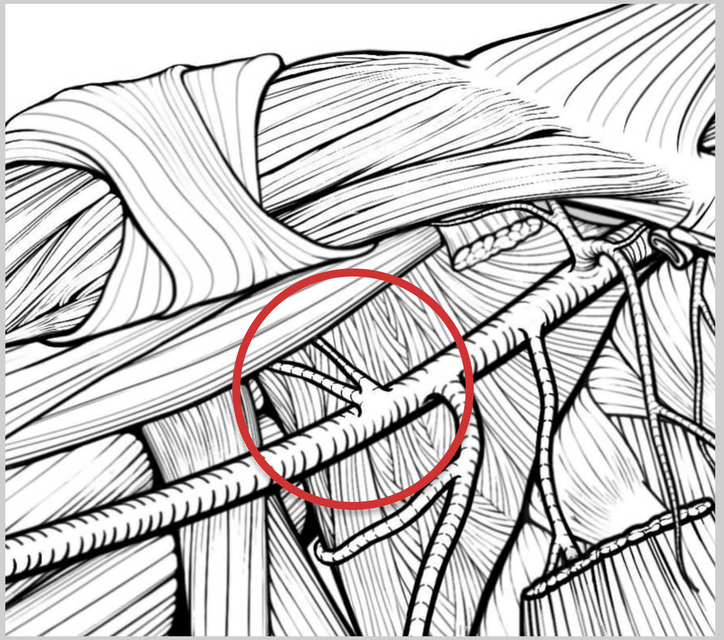
겨드랑 동맥에서도 앞위팔휘돌이 동맥과 뒤위팔휘돌이 동맥의 변이를 보여주는 부분으로 두 동맥이 분지될때 같은 갈래에서 분지가 일어나는 경우입니다.

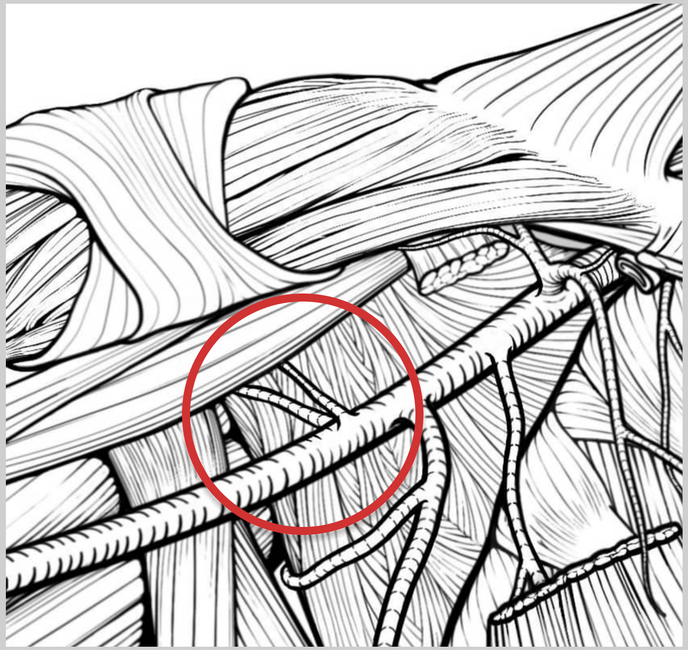
1.라인드로잉

겨드랑동맥

레퍼런스, 기획





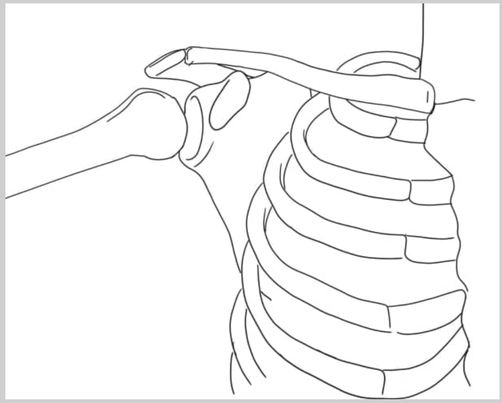


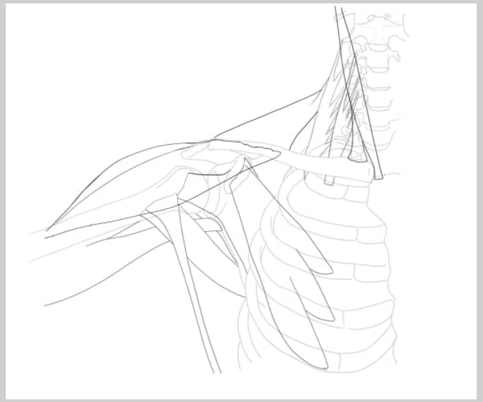
앞,뒤위팔휘돌이 동맥의 변이

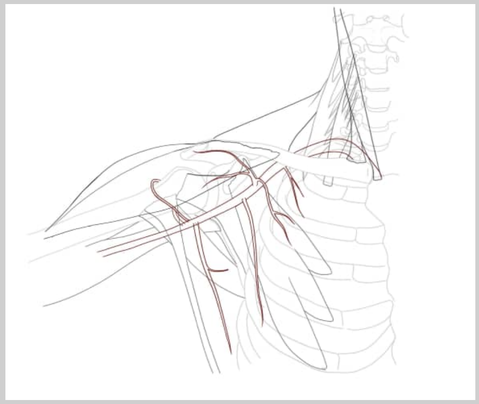
1.라인드로잉

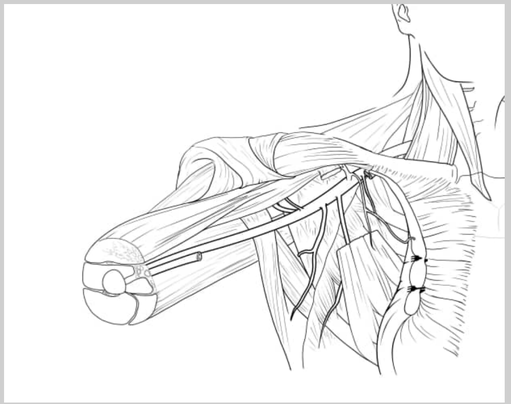
겨드랑동맥

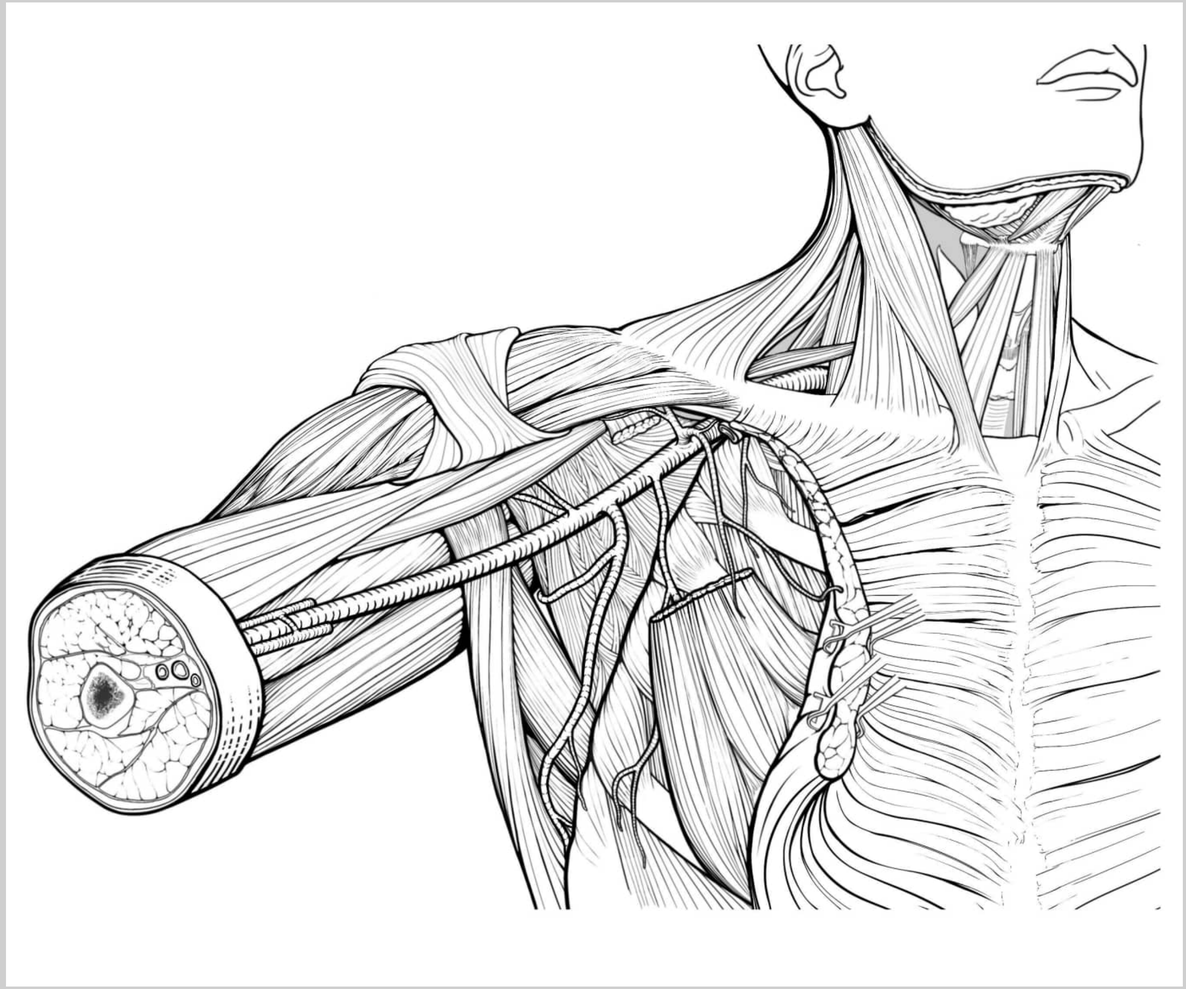
과정, 기획변화







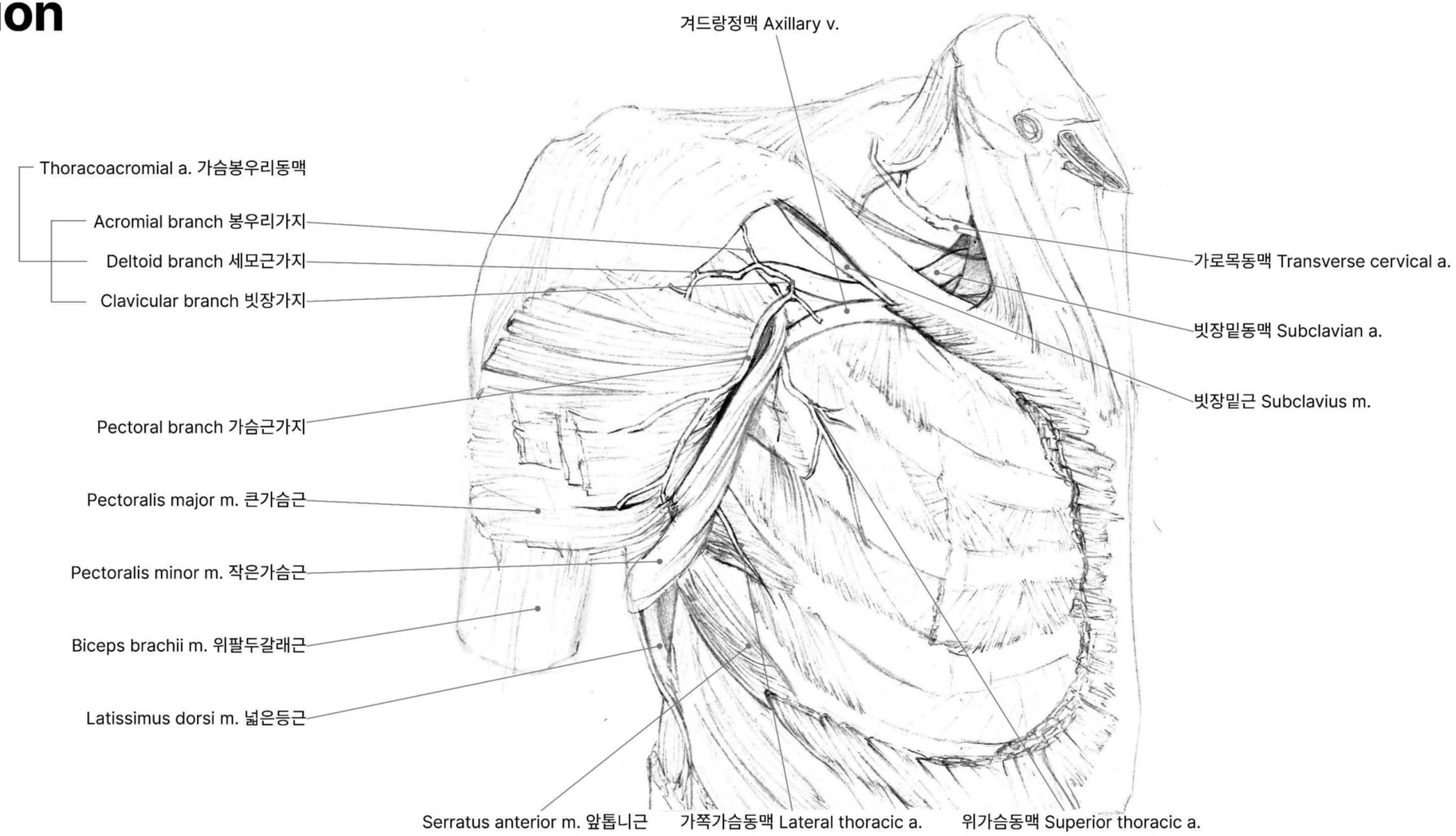




앞,뒤위팔휘돌이동맥의 변이는 임상적으로 중요한 부분이 아닌점과 이 작업을 진행하면서 생기는 의문점과 이해하기 어려운 부분을 공부하다 보니 빗장밑 동맥과 겨드랑동맥이 표지점에 따라 명칭이 바뀌는 것을 설명하는것이 더 좋다고 판단해 겨드랑동맥의 위치별 구분에 관한 라인드로잉을 제작하게 되었다.

2.표본스케치

Axillary Region



Position of the Thoracic Organs

Vertebral a. 척추동맥

오른빗장밑동맥과 정맥
Right subclavian artery and vein

Esophagus 식도

Trachea 기관

Superior vena cava 위대정맥

오른허파 수평틈새
Horizontal fissure of right lung

Right lung 오른허파

오른허파 빗틈새
Oblique fissure of right lung

배바깥빗근
Abdominal external oblique m.

앞목갈비근 Scalenus anterior m.

팔신경얼기 Brachial plexus

왼온목동맥 Left common carotid a.

팔머리동맥 Brachiocephalic trunk

왼허파 Left lung

왼허파 빗틈새 Oblique fissure of left lung

심장파임 Cardiac notch

심장막 Pericardium

허파혀 Lingula

가로막가슴막 Diaphragmatic pleura

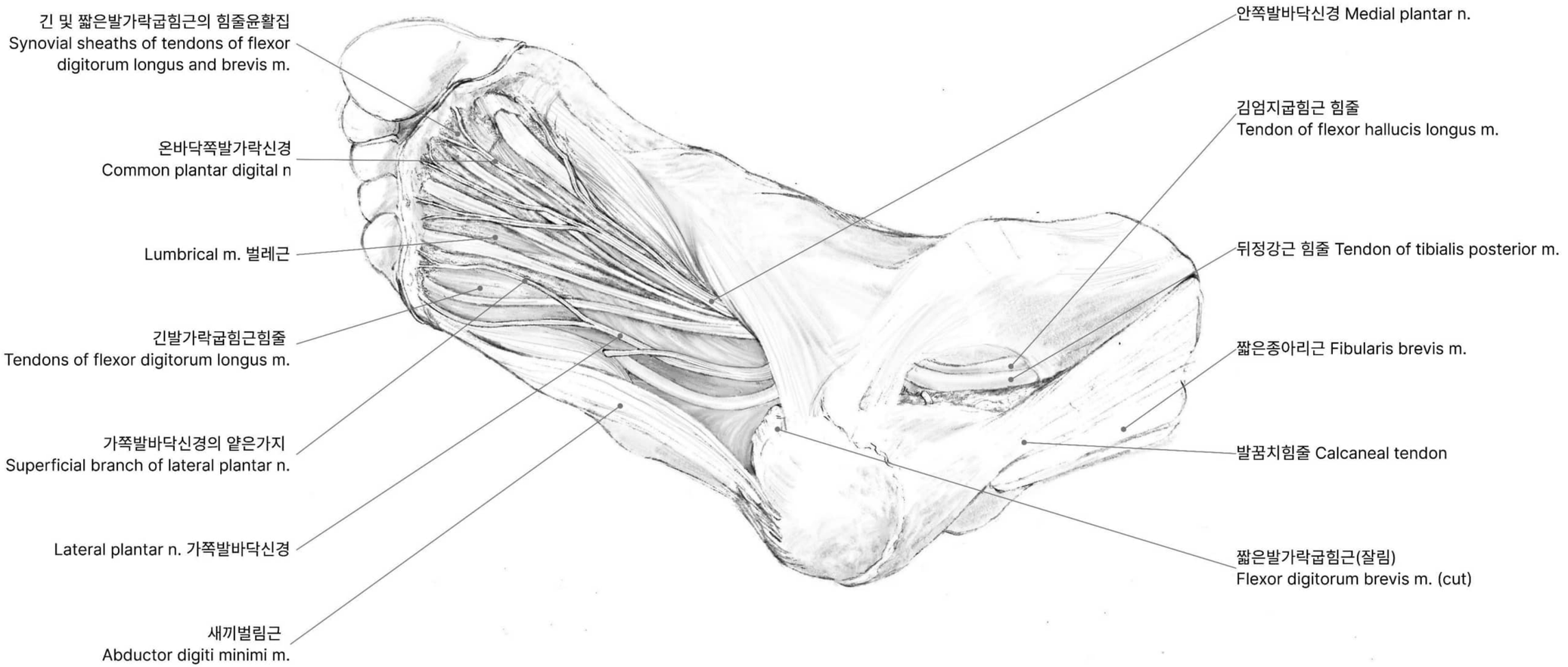
가로막 Diaphragm

갈비모서리 Costal margin

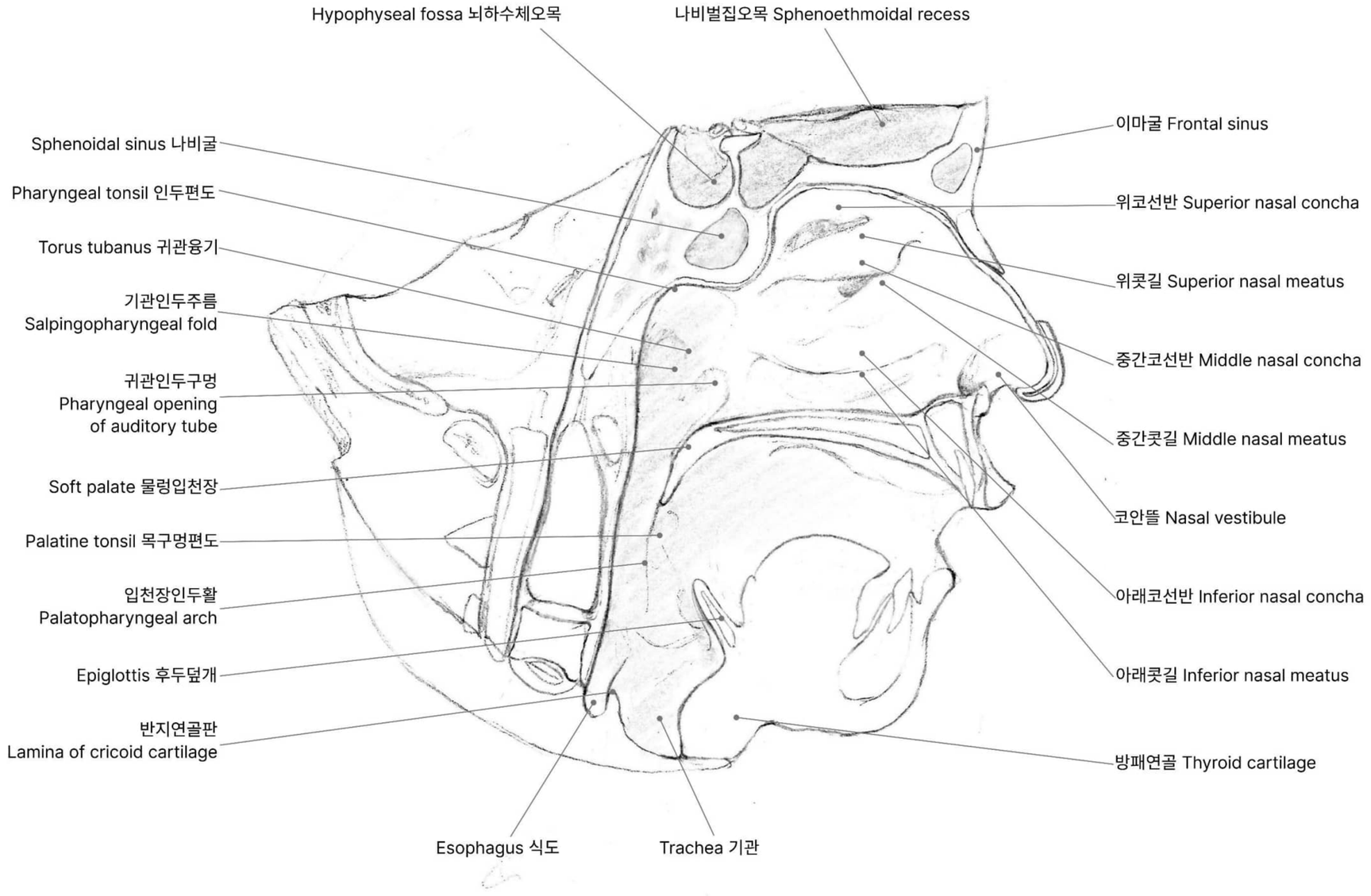
배곧은근 Rectus abdominis

나눔힘줄 Tendinosus intersection

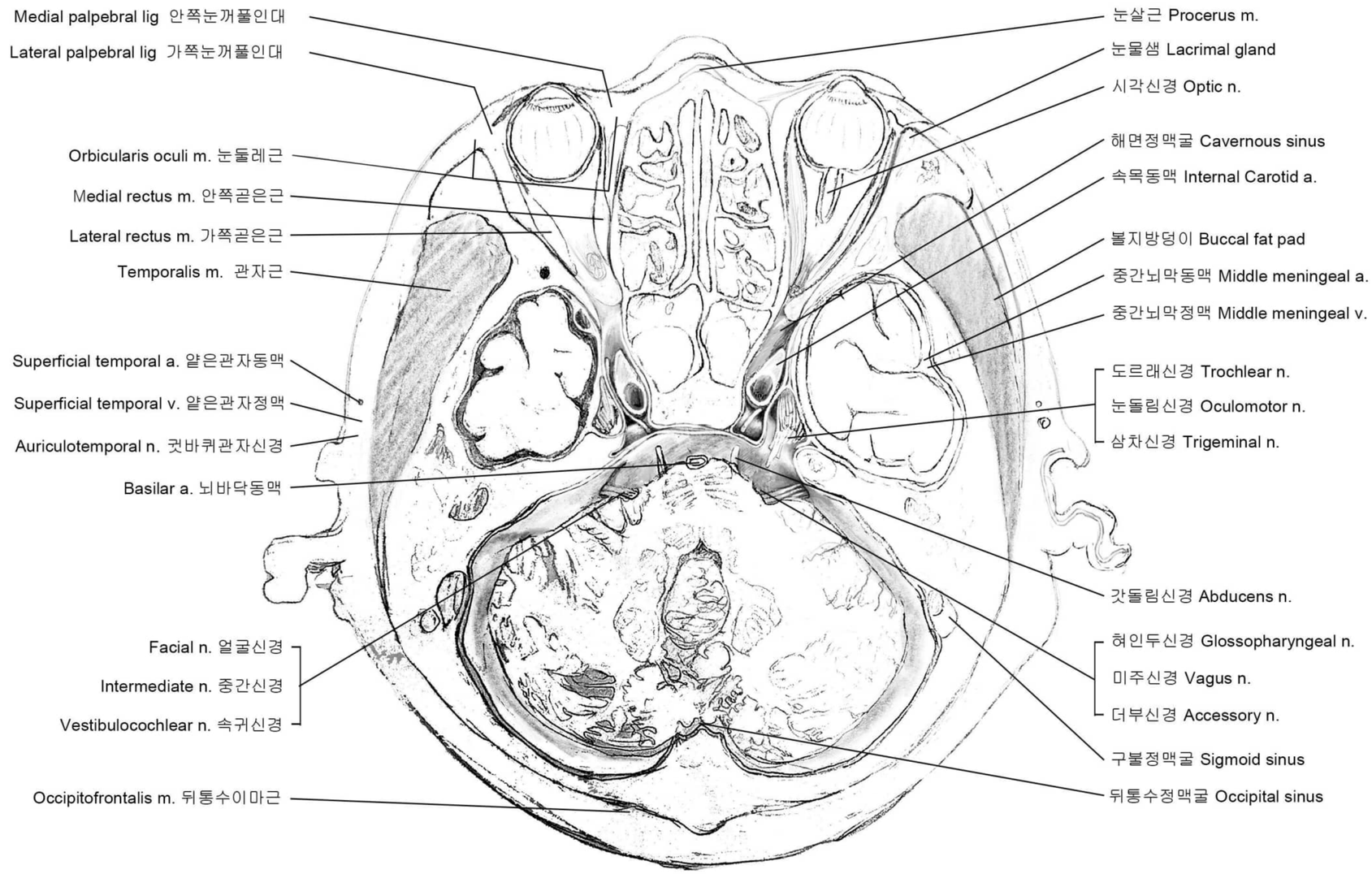
Sole of the Foot _ Middle Layer



Upper Respiratory System

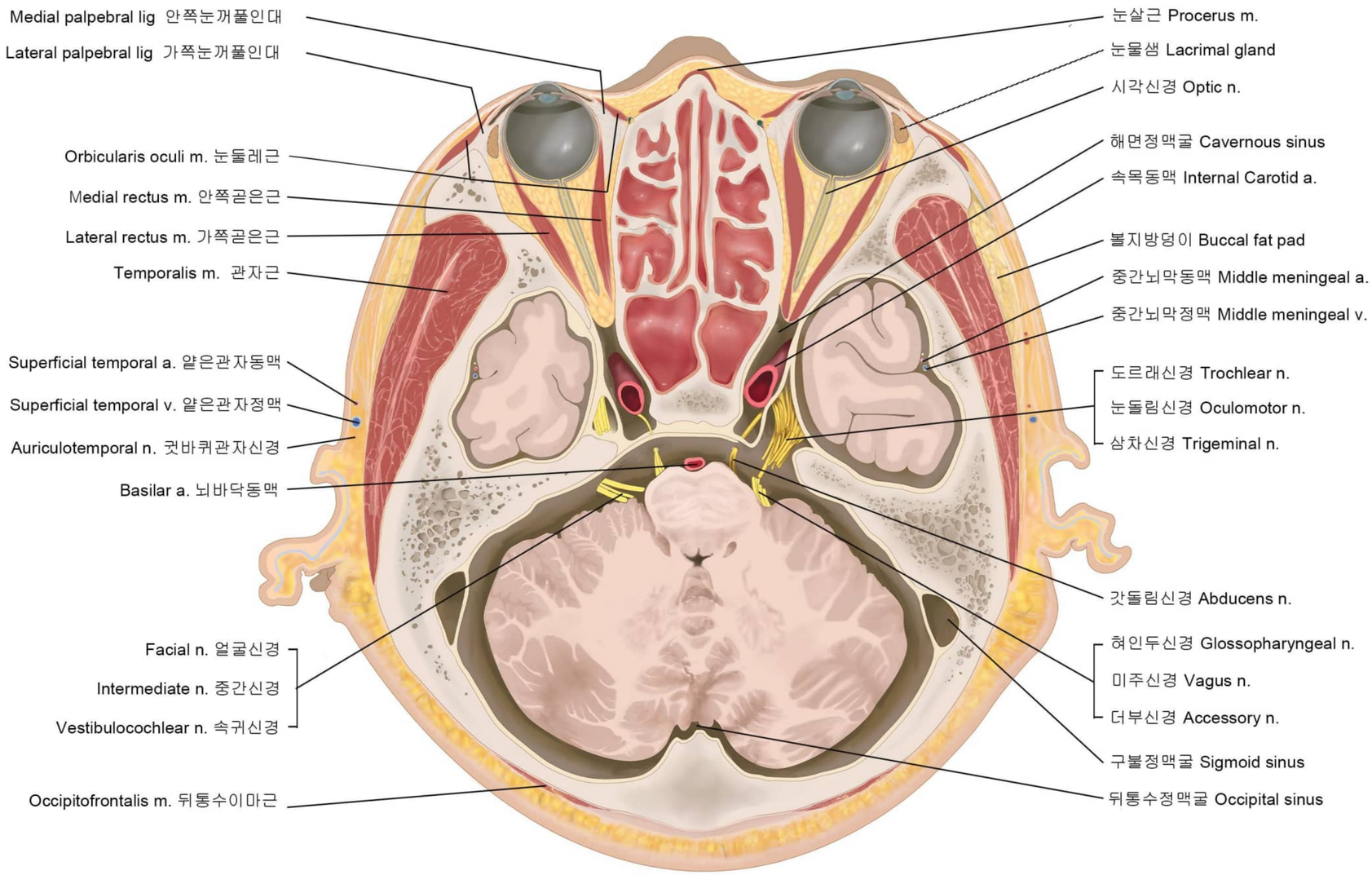


Axial Section: ICA and Cranial Nerves

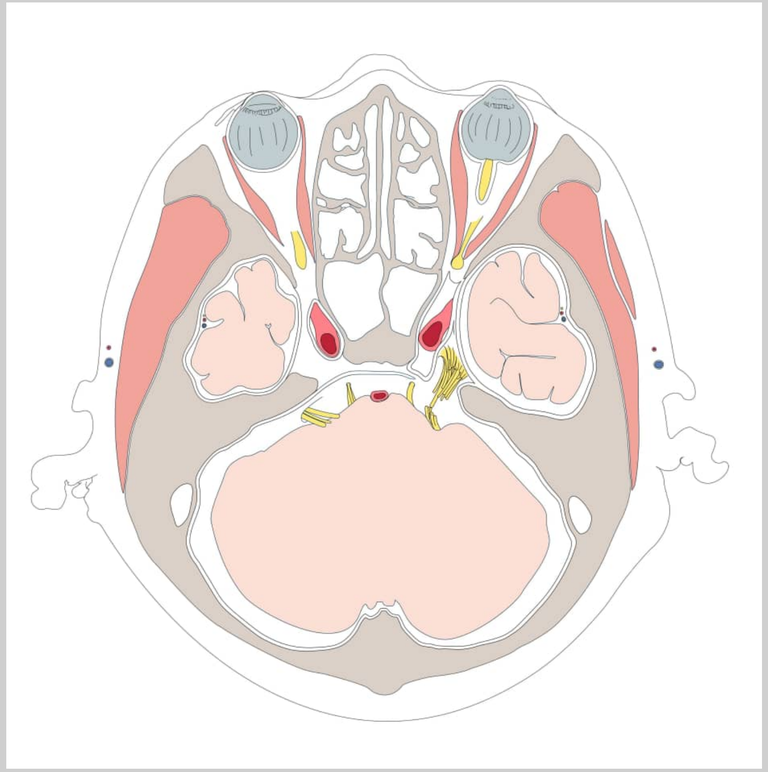


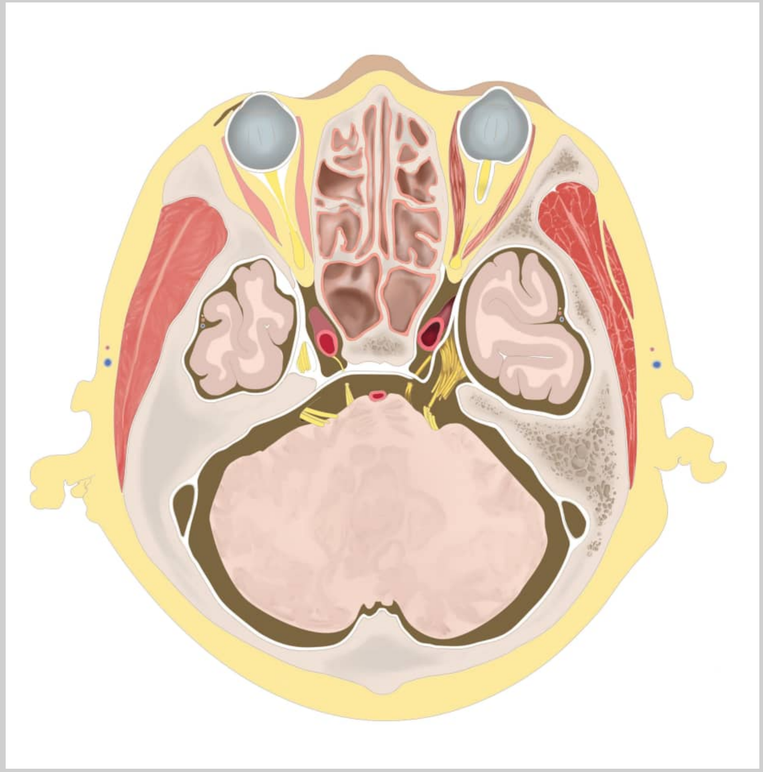
3.표본컬러링

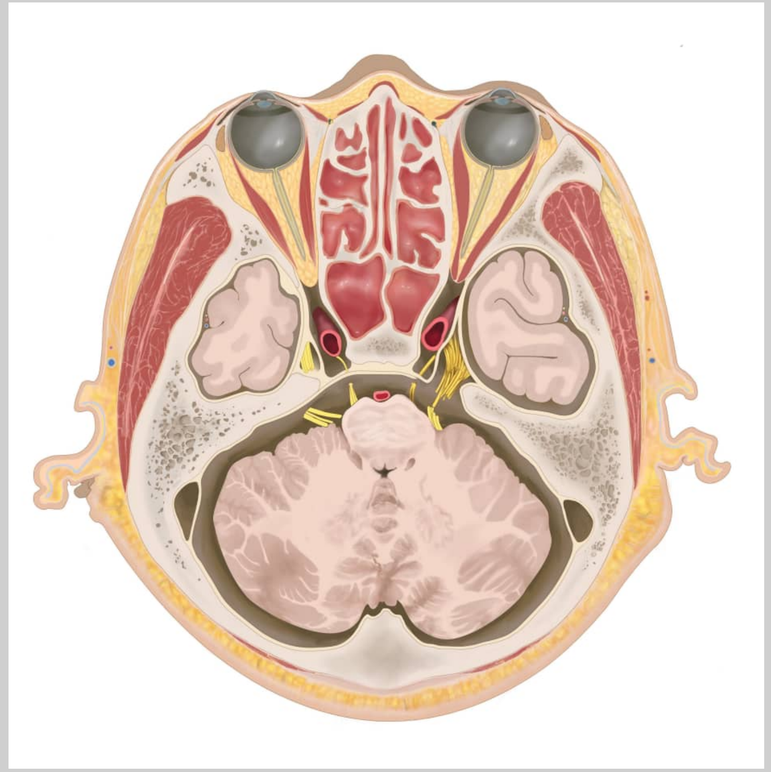
Axial Section: ICA and Cranial Nerves



3.표본컬러링

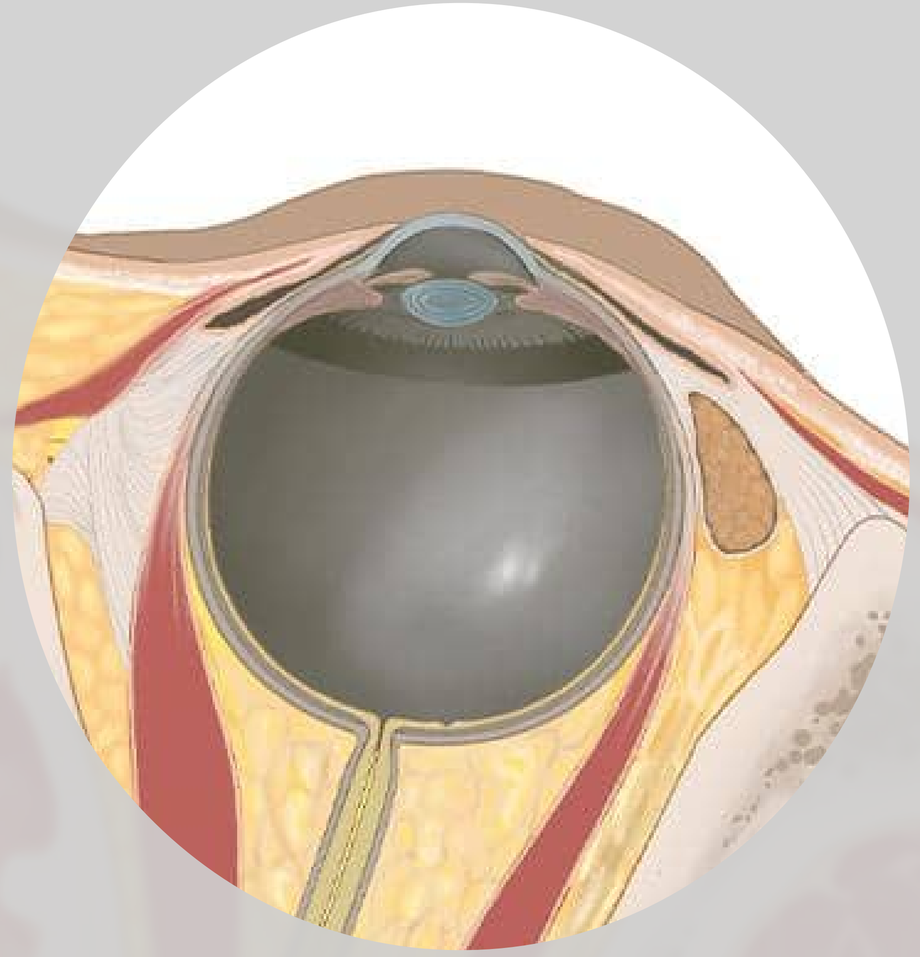






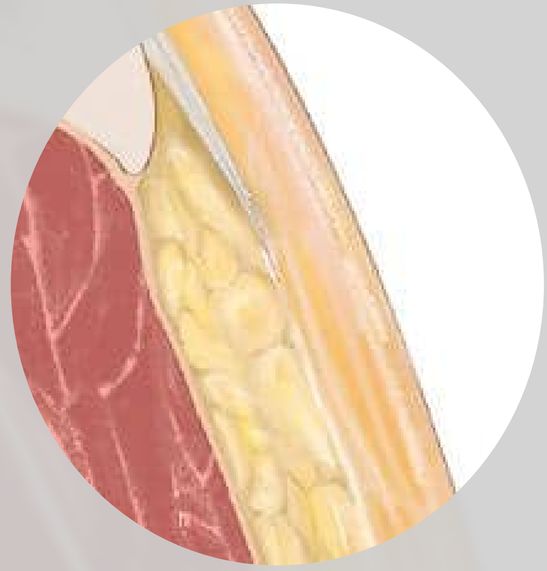
표본스케치에서 삼차신경, 미주신경, 더부신경을 비롯한 신경들과 속목동맥이 보이는
점이 매력적이고 공부하기 좋다고 생각해 컬러링으로 진행하게 됐습니다.

3.표본컬러링



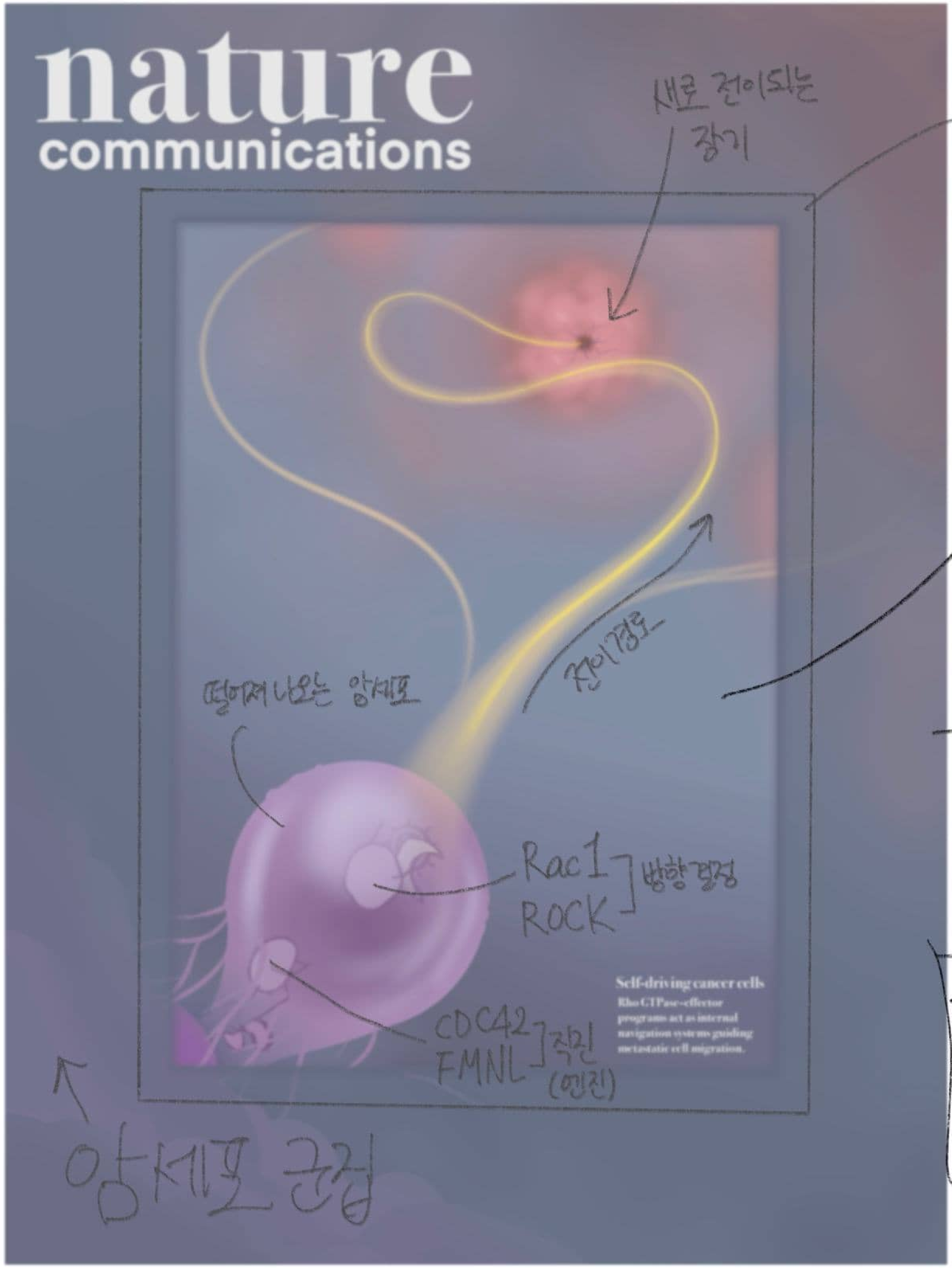
안구 단면의 표현과 눈꺼풀인대의 표현, 그 주변의 지방과 근육의 관계를 표현하는데 신경 썼습니다.

피하지방과 Buccal fat pad의 질감과 색상에 차이를 두어 구분지었습니다.



표본스케치에서 삼차신경, 미주신경, 더부신경을 비롯한 신경들과 속목동맥이 보이는 점이 매력적이고 공부하기 좋다고 생각해 컬러링으로 진행하게 됐습니다.

4.저널커버



(다른 PPI기법보다 정확하게 보임)
이번연구를 위해
직접 개발한 PPI기법을
창 형태로 표현
Inspect

배경을 어떻게 표현할지
고민중 (①혈관 ②바닷속)

2025.10.31일
nature communications에
게재된 암전이(암세포가 스스로 움직여
전이시키는 것을 관찰)

-Key word
*암전이 *스스로 움직임
*선명한 관찰(Inspect 기술)

nature communications

Article

A Rho GTPase-effector ensemble governs cell migration behavior

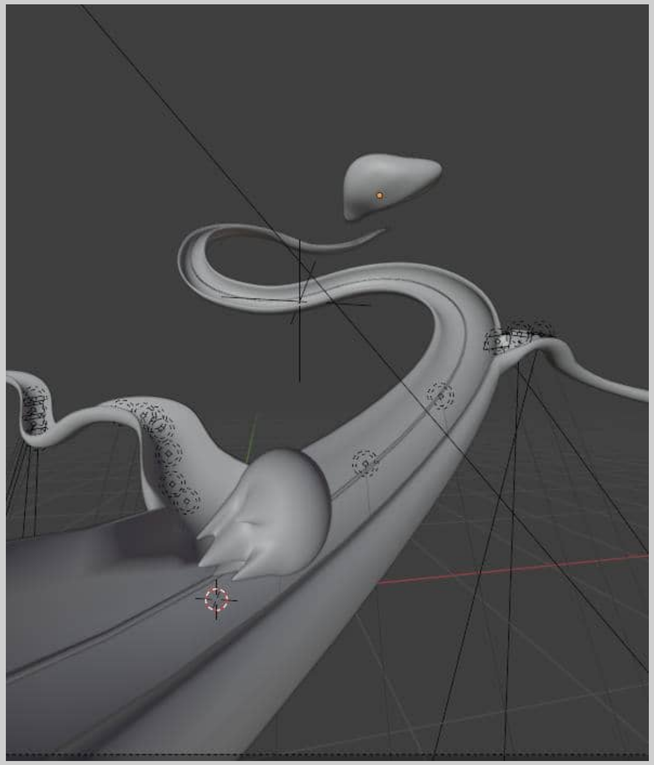
Received: 3 May 2024
Accepted: 17 September 2025

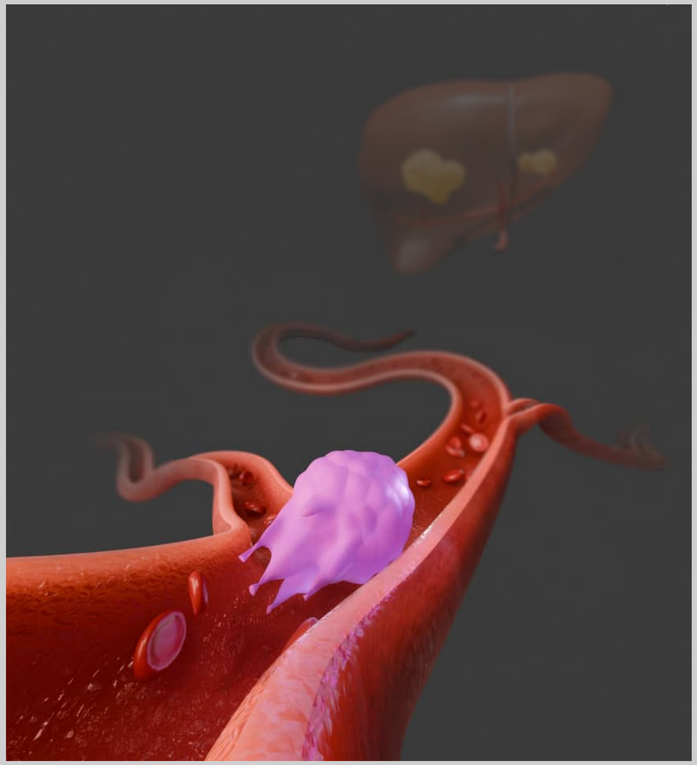
Check for updates

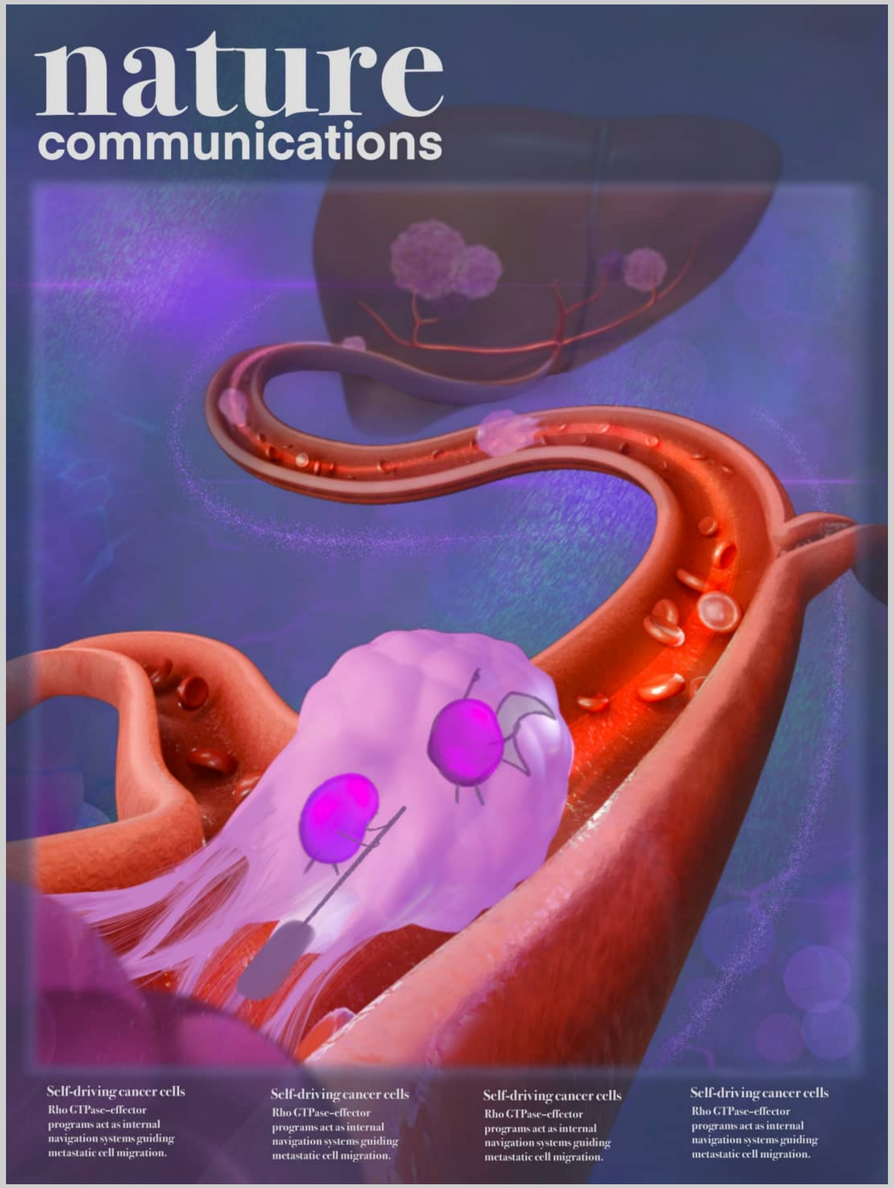
Heeyoung Lee, Sangkyu Lee, Yeji Seo, Dongsan Kim, Yohan Oh, Jaee Jin, Bobae Hyeon, Younghyun Han, Hyunjun Kim, Yong Jin Lee, Ho Min Kim, Gabsang Lee, Kwang-Hyun Cho & Won Do Heo

How can a cell navigate its environment without any external cues? Since such cues are not always present in the environment, cells rely on internal machinery to explore their surroundings. Although Rho GTPases are known for orchestrating cell motility, the intrinsic Rho GTPase-effector mechanisms governing spontaneous migration remain incompletely understood. Here we show an imaging based method that profiles protein-protein interactions (PPIs) through phase-separated condensates. By applying this method to hundreds of interaction profiles between Rho small GTPases and their effector proteins, we uncovered two intrinsic mechanisms governing cell migration. Formin-like protein (FMNL) determines the front of the cell by restricting Cdc42 activity, establishing front-rear polarity. In contrast, Rac1-ROCK interaction-mediated arc stress fiber formation at the front inherently enables spontaneous directional changes and enhances cellular responses to external cues. Our findings elucidate the intricate roles of the Rho GTPase-effector ensemble that governs cell migration behavior, revealing an intrinsic program for efficient motility strategies.

4.저널커버






nature
communications
Self-driving cancer cells
Rho GTPase–effector programs act as internal navigation systems guiding metastatic cell migration.
Self-driving cancer cells
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Self-driving cancer cells
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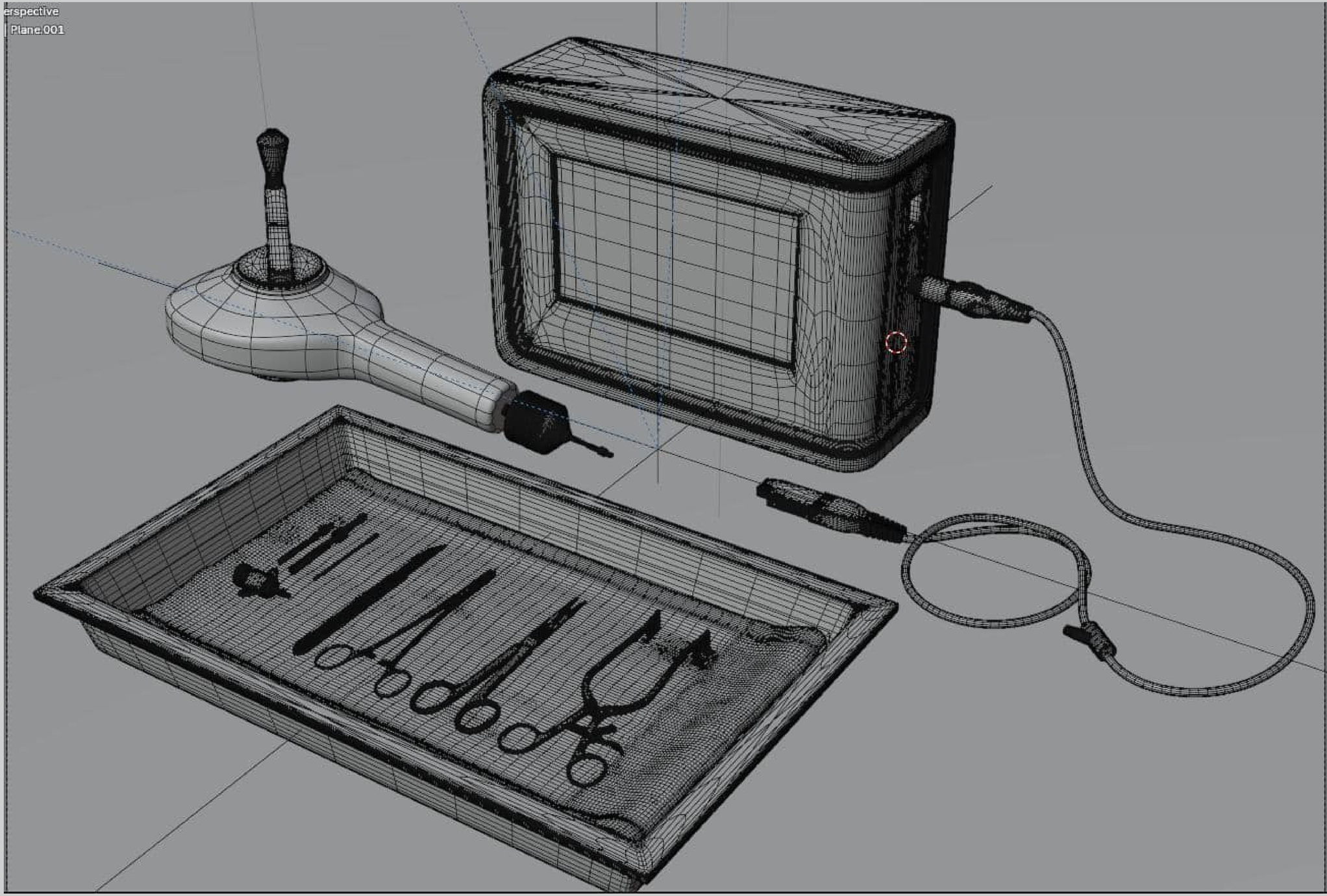
Self-driving cancer cells
Rho GTPase–effector programs act as internal navigation systems guiding metastatic cell migration.

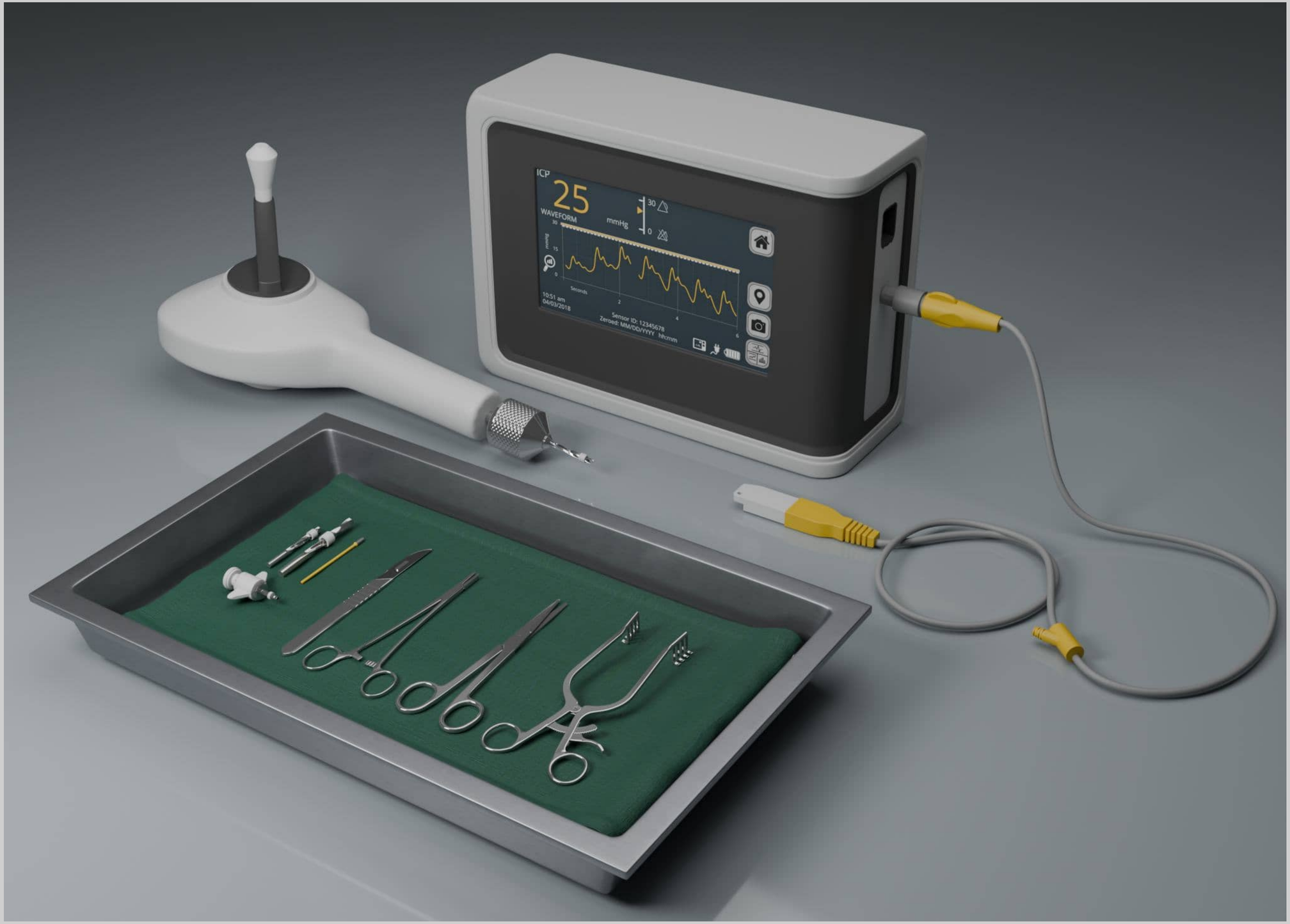
5.수술기구모델링

ICP Monitoring



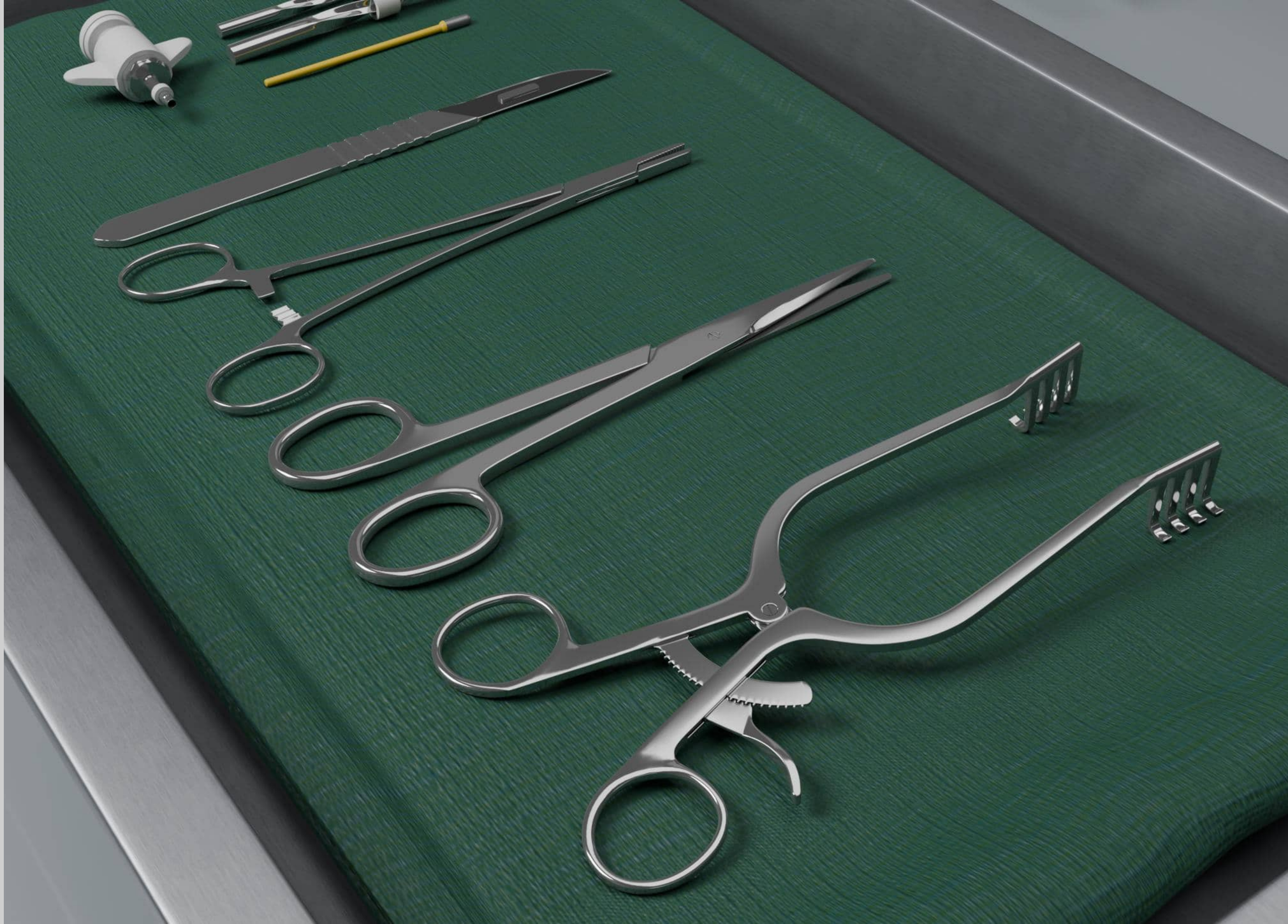
5.수술기구모델링

ICP Monitoring



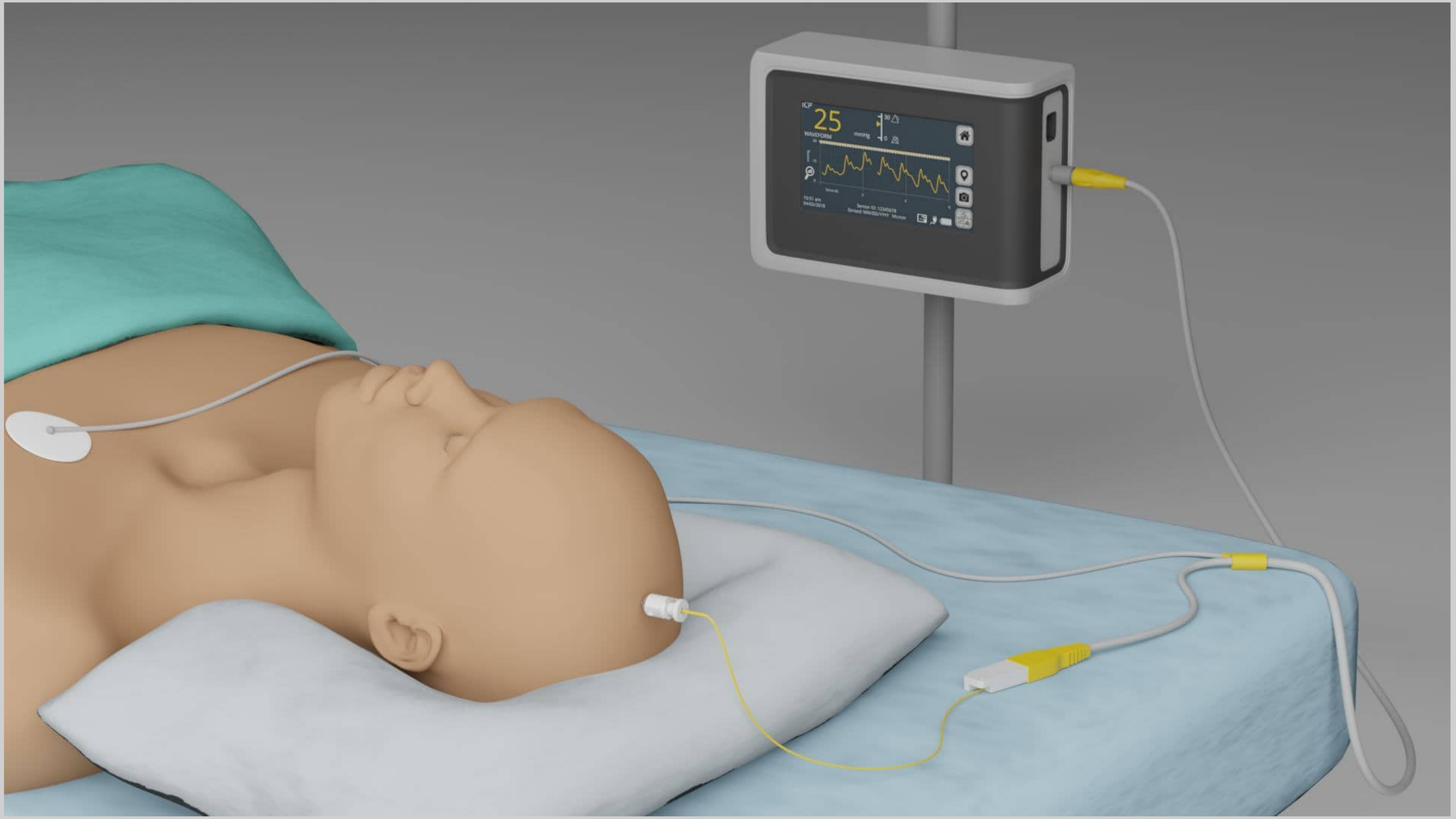
5.수술기구모델링

Header



5.수술기구모델링

ICP Monitoring



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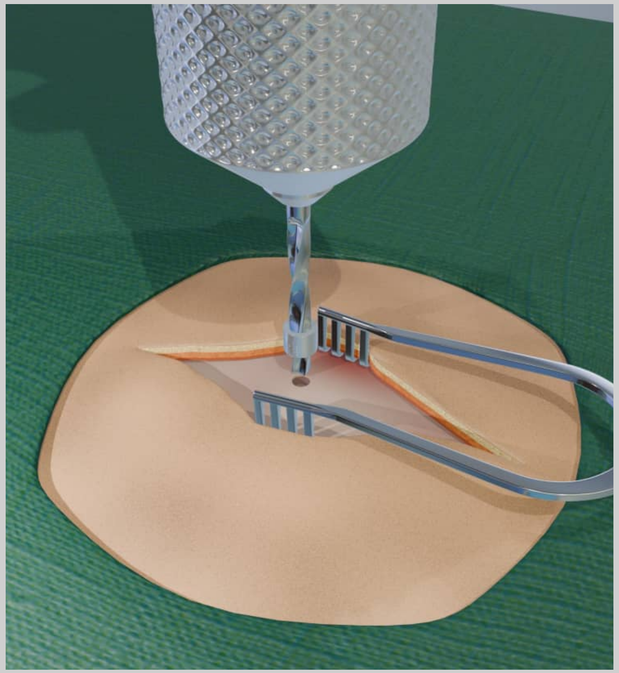
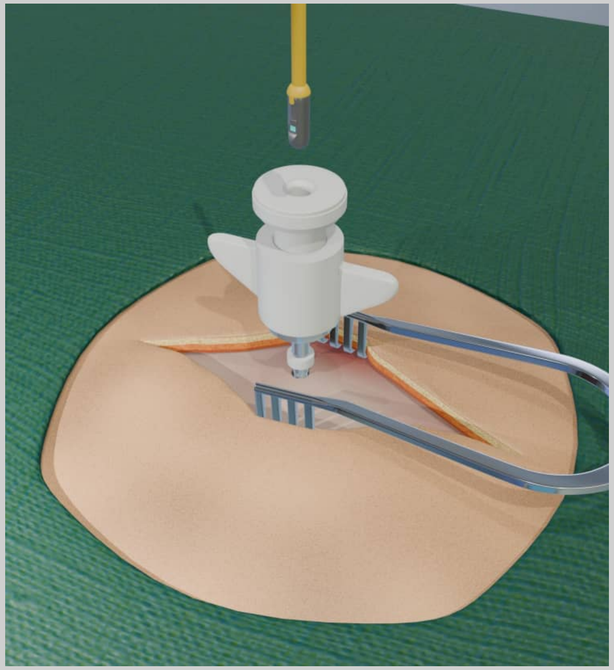
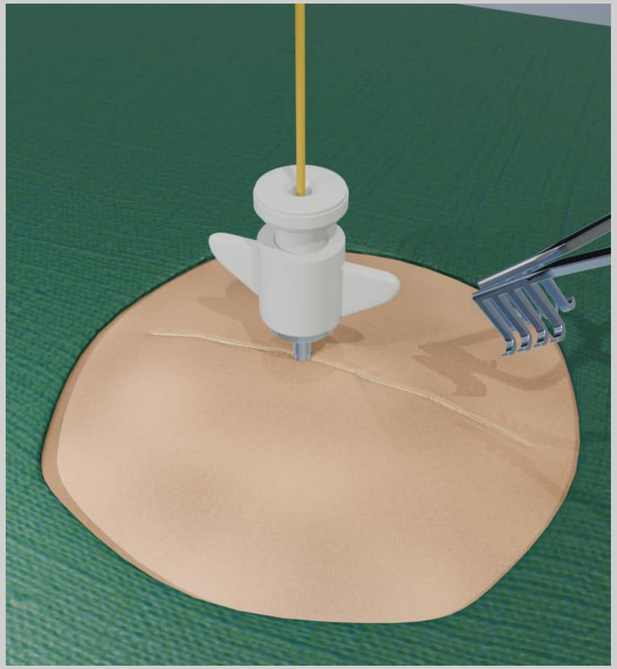
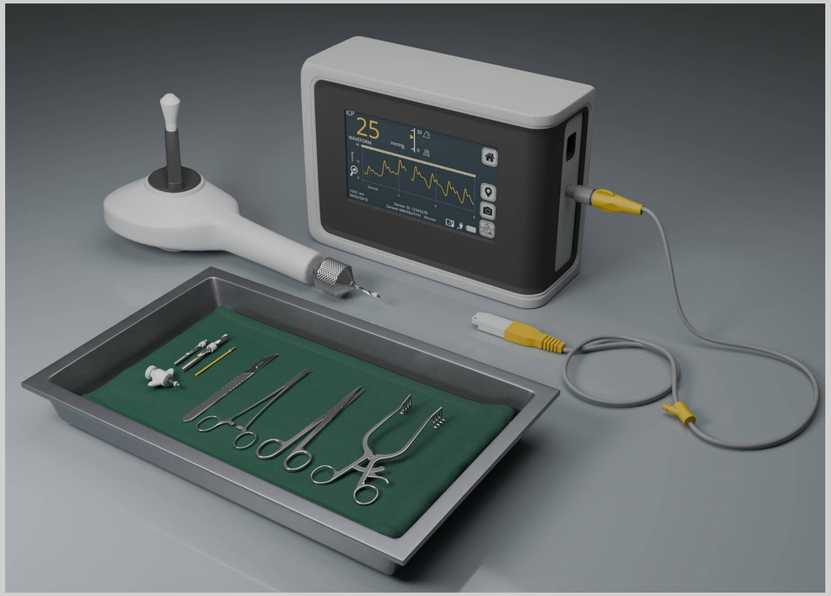
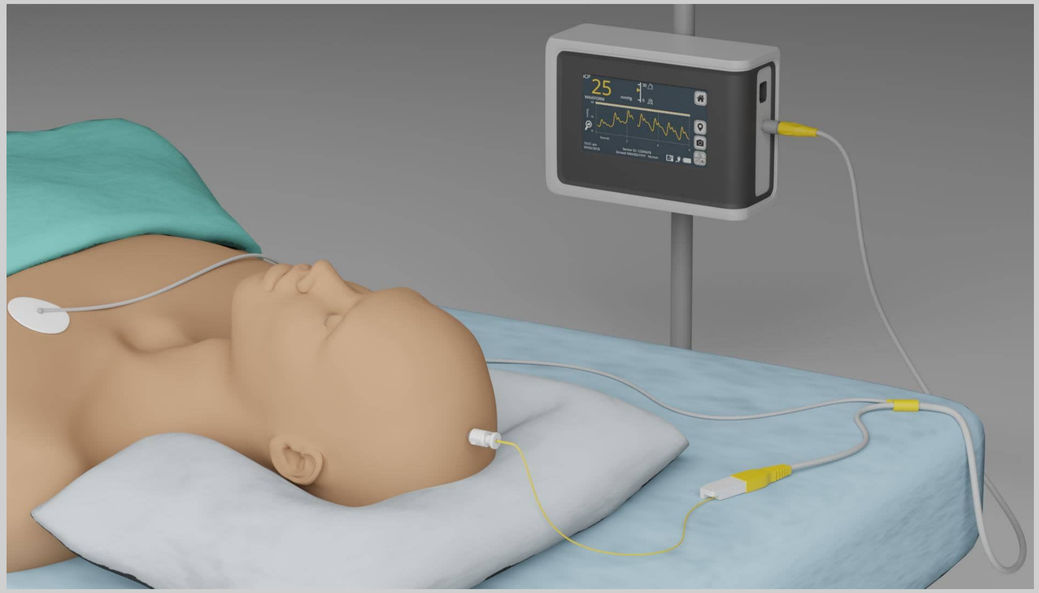
ICP Monitoring

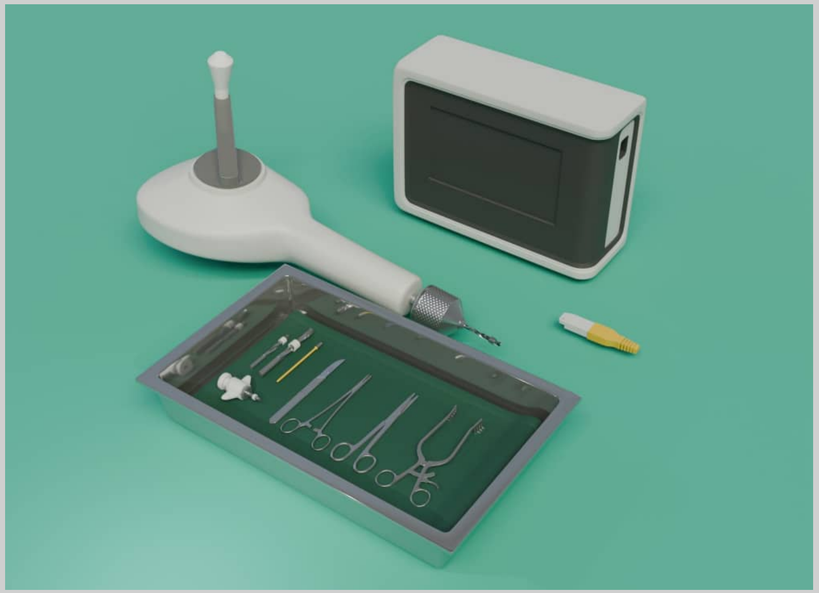


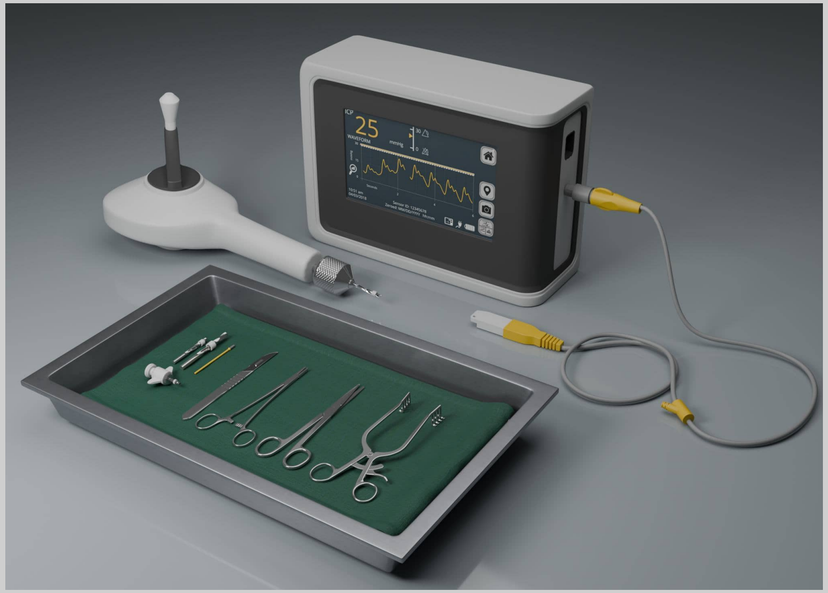




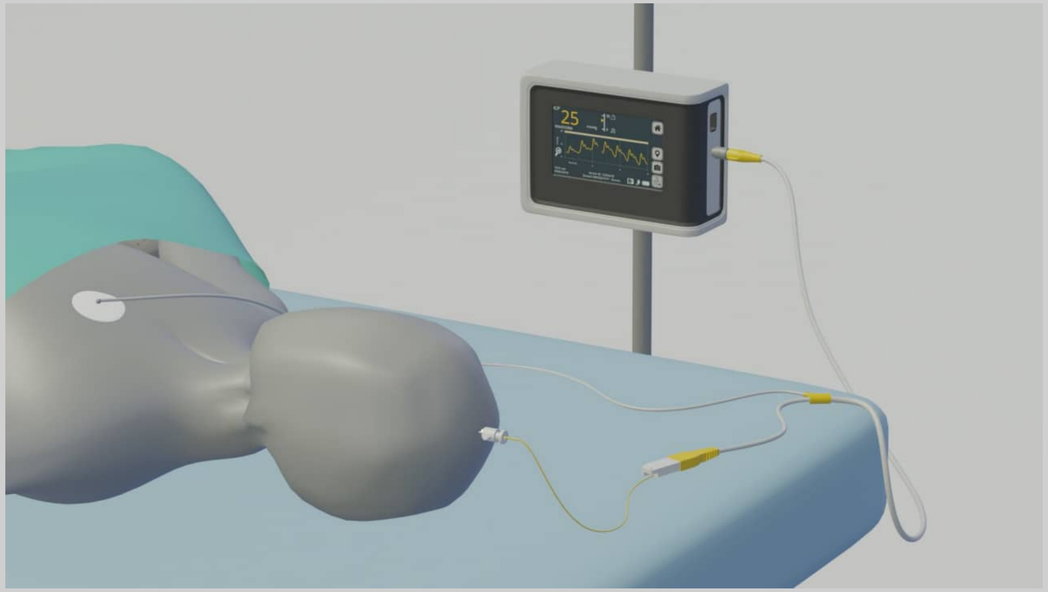


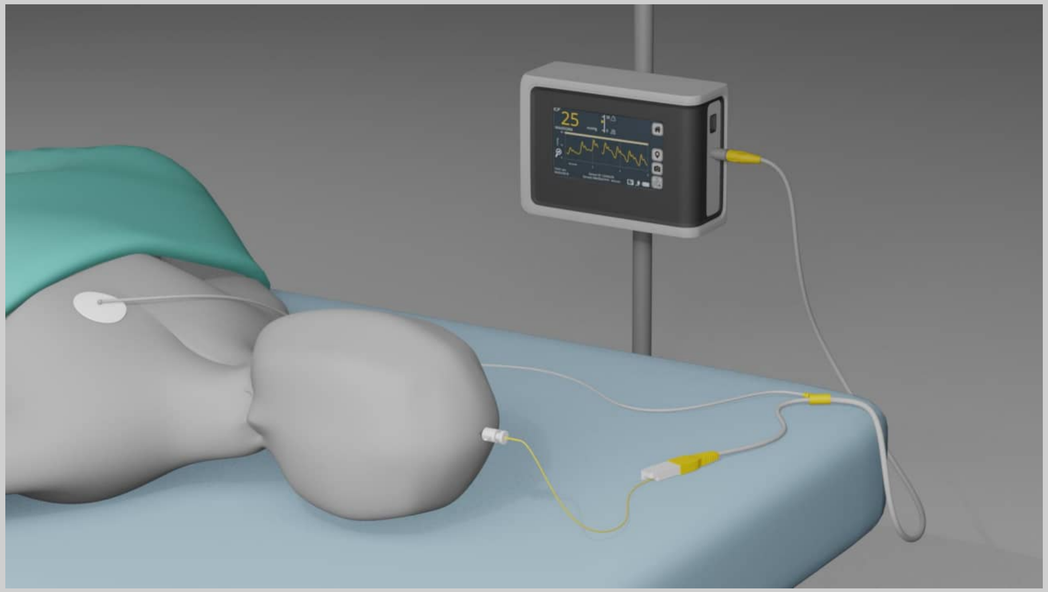


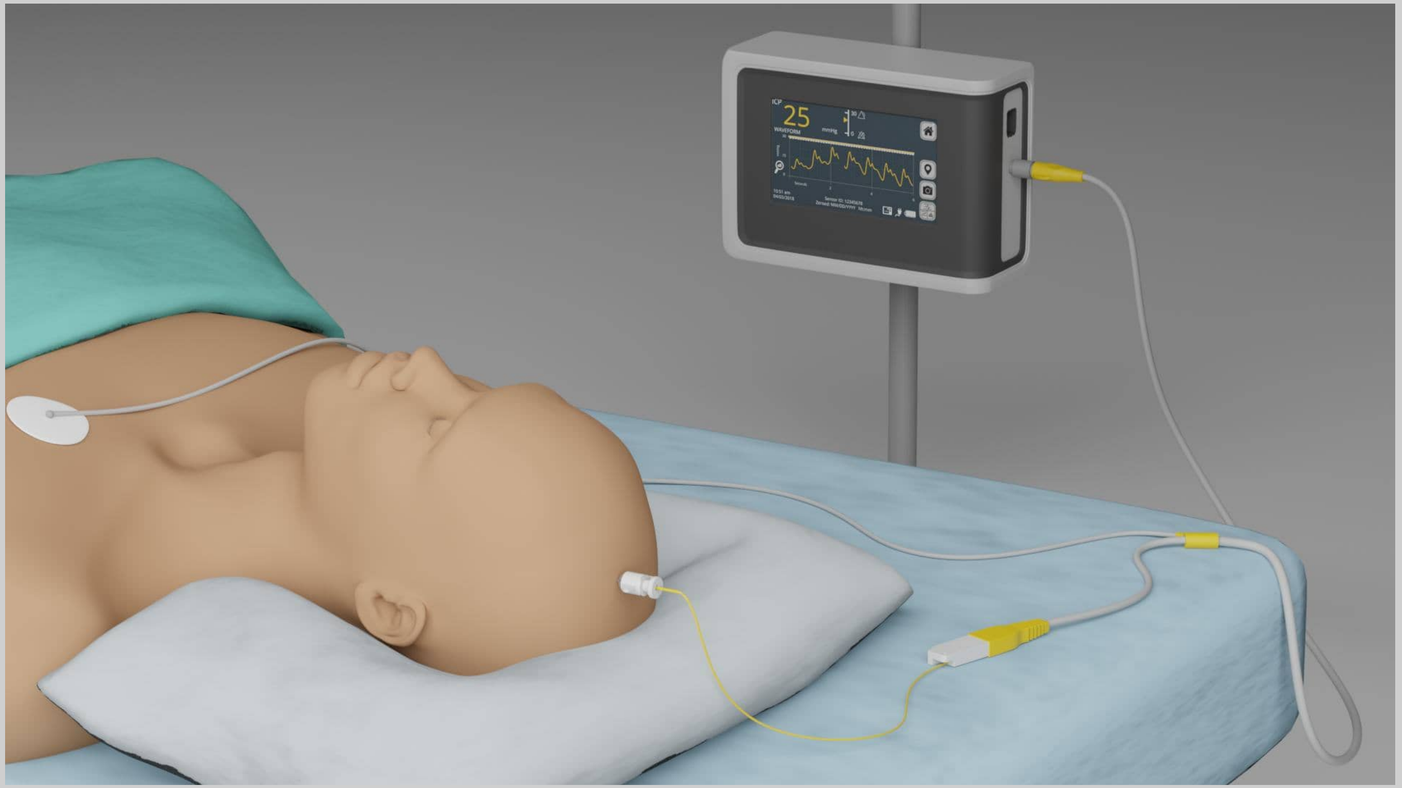




작업과정

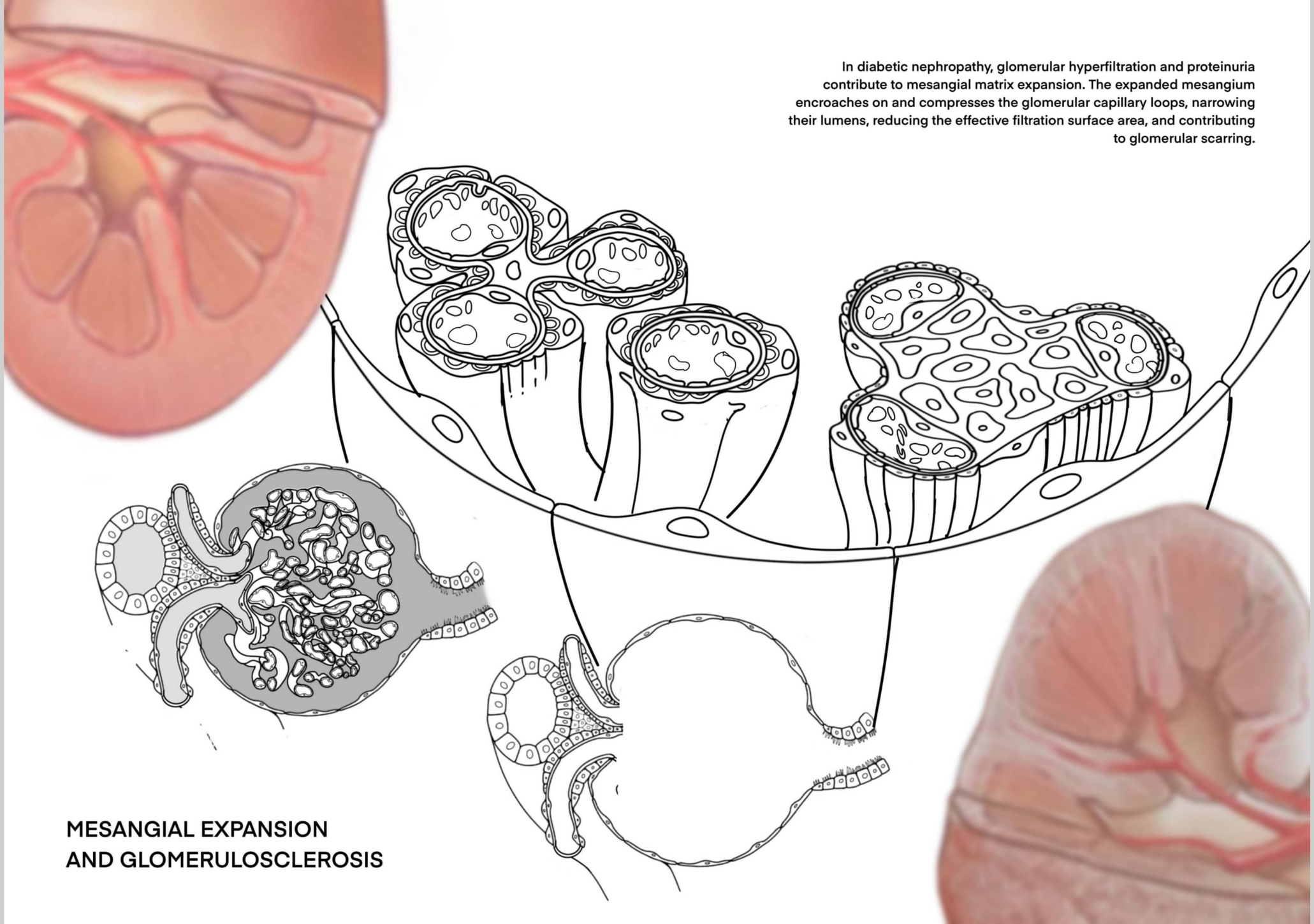






작업과정

6.조직학


In diabetic nephropathy, glomerular hyperfiltration and proteinuria contribute to mesangial matrix expansion. The expanded mesangium encroaches on and compresses the glomerular capillary loops, narrowing their lumens, reducing the effective filtration surface area, and contributing to glomerular scarring.
MESANGIAL EXPANSION
AND GLOMERULOSCLEROSIS

감사합니다