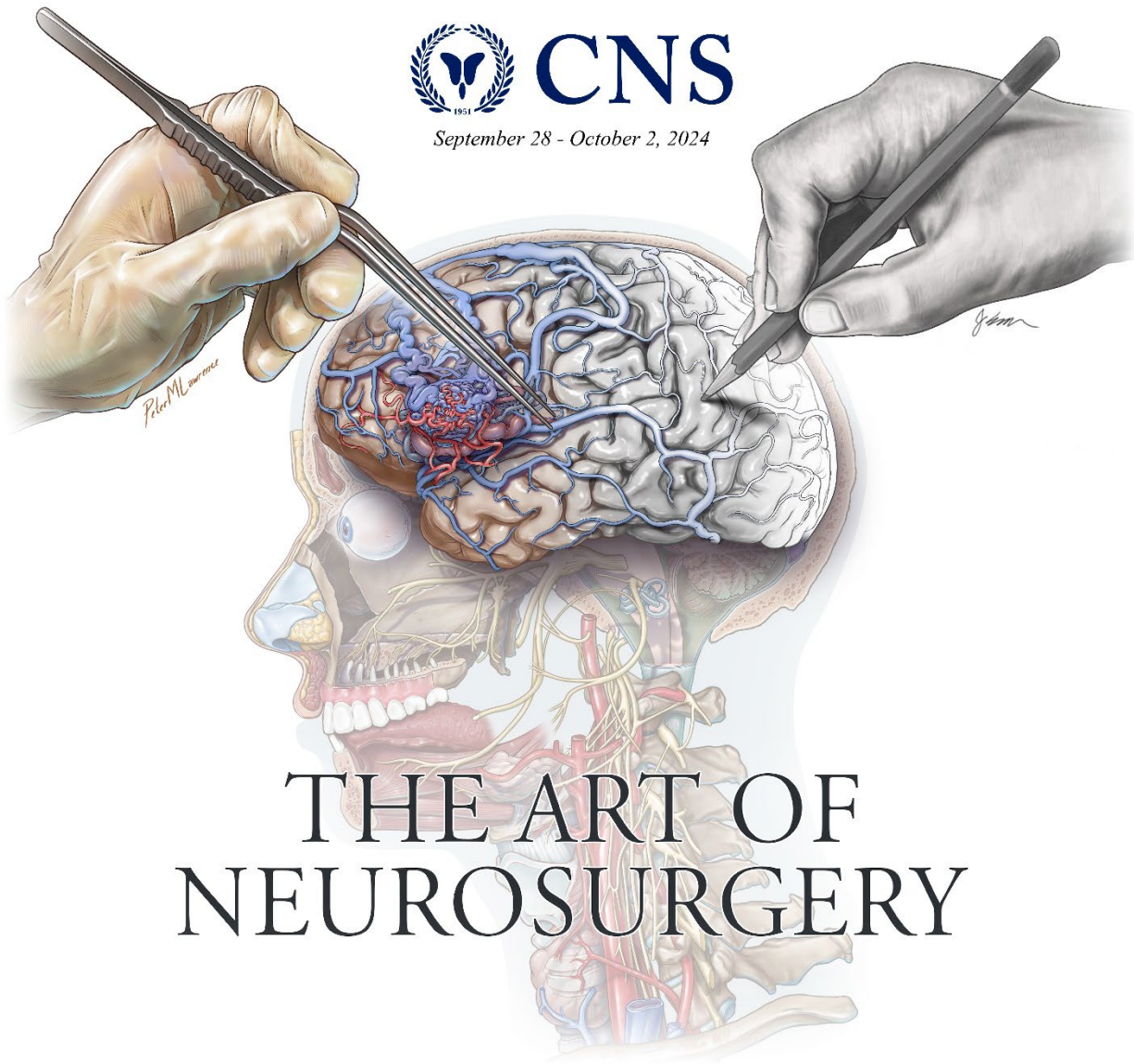




CNS

September 28 - October 2, 2024



# THE ART OF NEUROSURGERY

## Exhibiting Artists

### 1) Goodness Boluwatife Adenowo

#### *No Pain, No Gain*

The drawing illustrates a striking view of a man seated upright, with his skull opened to reveal his brain. A surgeon is seen operating on the brain while he is awake. The piece denotes pain and resilience in pursuit for recovery.

### 2) Robert O. Beach

#### *Pterional transsylvian approach*

Created with traditional acrylic paint. Published in Dr. Albert Rhoton's Cranial Anatomy and Surgical Approaches

### 3) Chandrima Biswas, MD

#### *The Dancing Girl*

A little girl dances oblivious to the crowd of patients around her, amusing her father who is waiting for his cancer treatment. I witnessed this scene as I walked past a busy hospital corridor in the largest institute dedicated to oncology in India.

### 4) Jason Brady

#### *Infratemporal Fossa*

Jason Brady is known for his luminous, naturalistic oil paintings. After discovering medical illustration, he merged his passion for art and science at the Johns Hopkins Department of Art as Applied to Medicine. He received the Frank Netter M.D. Award for his excellence in academic achievement and anatomical illustration and earned a Master of Arts in Medical and Biological Illustration in 2022. Jason is passionate about illustrating and animating the anatomical, histological, and molecular intricacies of the human body to help elucidate modern medicine. This illustration teaches medical students the complex spatial relationships of structures within the infratemporal fossa. This illustration was created through careful research and cadaveric dissection to understand how the nerves and arteries interweave between muscles to reach their target structures. ©2021 Jason Brady

### 5) V. Ramzes Chavez-Herrera

#### *Wired Brain*

A colorful digital drawing of a brain depicting the distant lobes. Wired in all its entirety.

### 6) V. Ramzes Chavez-Herrera

#### *Watercolor Ventricles*

This is a watercolor painting that was done during the initial COVID era. It states the different colors of the ventricles and the surrounding structures.

### 7) Aaron Cole

#### *Transcochlear Approach: C2-P2 Bypass*

This series of surgical illustrations depicts the process of exposing the Petrous Internal Carotid Artery (pICA) and Posterior Cerebellar Artery (P2 PCA) through a transcochlear-subtemporal approach. The final stage focuses on the grafting of a portion of the Radial Artery from the the pICA to P2 PCA.

**8) Frank M. Corl**

*Preoperative Planning for Apical Lung Tumor Removal*

Illustration based on a 3D print from a patient's CT scan to assist in preoperative planning for an apical lung tumor removal. Created using pencil and Photoshop.

**9) Mariye Erol Demirtuk, MD**

*The Titanium Angel*

The drawing depicts a young girl who, after scoliosis surgery, gains wings that provide her a sense of freedom. \ These wings are not like those of a bird but rather angelic, adding a touch of beauty to her transformation.

**10) Andrew Doty**

*Inland Empire*

Unlike other traumatic injuries, the infarct of brain trauma is subtle. What "Island Empire" demonstrates is the inward betrayal of the mind and senses when the structure of the brain is adulterated, which is reflected in the abstraction on the patients right. The patient's left, while seemingly normal, is a duality meant to portray that traumatic brain injuries affect those we may outwardly consider healthy, but who may inwardly face debilitating malaise.

**11) Russell Drake**

*Cerebellar Tumor Resection & Raney Clip Application*

Original gouache paintings depicting various neurosurgical procedures, 1933

**12) Russell Drake**

*Brain cysts. Enucleation of cystic glioma.*

© 2024 Mayo Foundation for Medical Education and Research (MFMER). All rights reserved

No photography or photos please.

**13) Russell Drake**

*Pencil sketch of aneurysmal varices of the right side of brain and sylvian fissure, anomalous vessel, temporal lobe.*

© 2024 Mayo Foundation for Medical Education and Research (MFMER). All rights reserved

No photography or photos please.

**14) Russell Drake**

*Pencil sketch of brain cysts. Enucleation of cystic glioma.*

© 2024 Mayo Foundation for Medical Education and Research (MFMER). All rights reserved

No photography or photos please.

**15) Russell Drake**

*Surgical consideration of brain tumor. Oligodendroglioma. Left frontal lobe. Tumor removal. (Color)*

© 2024 Mayo Foundation for Medical Education and Research (MFMER). All rights reserved

No photography or photos please.

**16) Josh Emerson**

*Neuroanatomy 101*

Created using graphite and Photoshop

**17) Reyna Escalante**

*A Shadow in the Or*

As a medical student, my time in the operating room primarily involves observation. Though my role is limited in terms of direct involvement, I am deeply moved by the moments I witness. This piece is an amalgamation of several pieces I created during my time shadowing a neurosurgery program. They are a reflection of the profound experience and knowledge gained during that period.

**18) Eleanora Fry**

*Brain tumor. Section through brain and tumor.*

© 2024 Mayo Foundation for Medical Education and Research (MFMER). All rights reserved

*No photography or photos please.*

**19) Eleanora Fry**

*Cerebral tumors. Calcereous tumor about to be removed and depression on brain surface exposed.*

© 2024 Mayo Foundation for Medical Education and Research (MFMER). All rights reserved

*No photography or photos please.*

**20) Eleanora Fry**

*Extradural fibroneuroma of the spinal cord. Cyst eroding bony canal.*

© 2024 Mayo Foundation for Medical Education and Research (MFMER). All rights reserved

*No photography or photos please.*

**21) Eleanora Fry**

*Spinal cord tumor. Dura opened. Incision made in cord substance.*

© 2024 Mayo Foundation for Medical Education and Research (MFMER). All rights reserved

*No photography or photos please.*

**22) Matthew Goldman, MD**

*Brainstorming*

After a productive and educational call shift, your brain is fried. Your sleep deprived neurons short circuit as you sign out the events of the night. The post-call exhausted dreamy state of mind fuels creativity.

**23) Steve Graepel**

*Perivascular invasion of primary human glioblastoma cells in organotypic human brain slices: human cells migrating in human brain*

Glioblastoma (GBM) is an aggressive primary brain cancer. Lack of effective therapy is related to its highly invasive nature. GBM invasion has been studied with reductionist systems that do not fully recapitulate the cytoarchitecture of the brain. The team at Mayo Clinic describe a human-derived brain organotypic model to study the migratory properties of GBM IDH-wild type ex vivo.

Full article published in the Journal of Neuro-Oncology July 25, 2023

#### **24) Lydia Gregg**

##### *Perimedullary Arteriovenous Fistula Associated with a Paraspinal Arteriovenous Malformation in a Newborn*

This piece depicts a rare combination of two vascular pathologies in a newborn. First, a perimedullary arteriovenous fistula (PMAVF): an abnormal connection between an artery and a vein on the surface of the spinal cord. Second, a paraspinal arteriovenous malformation (AVM): a tangled mass of abnormal vessels. The left side of the piece shows the locations of the lesions and the branches that supply them at vertebral levels T11 and L4. The inset shows the relationship of the PMAVF and abnormal feeding vessels to the spinal cord and the correct location for the catheter, which are crucial elements in achieving closure of the fistula. Dashed lines in the first image indicate the opening along the pedicles shown in the inset. The draining vein's exit from the spinal canal at level L5 is also shown. Created using Photoshop and Osirix for Neuroradiology Clinic, Klinikum Stuttgart, Stuttgart, Germany, 2020

#### **25) Lydia Gregg**

##### *Supracerebellar Transtentorial Approach for Selective Amygdalohippocampectomy*

This illustration provides an overview of the supracerebellar transtentorial approach for selective amygdalohippocampectomy. The orientation figure in the upper left clarifies the angles of the parasagittal and coronal sections in the main image. To highlight the depth of access achieved by this approach, selective lighting was used to draw the viewer's eye to the areas of focus. The surgical field is depicted with bright, warm-hued, high-contrast lighting, while the planes of section and background are treated with dark, cool-hued, low-contrast lighting. The viewing angle and planes of section allow for appreciation of features not simultaneously visible from the surgeon's view, including the elevated transverse sinus, tentorial incision, and trochlear nerve locations. The corresponding article was recently submitted to a neurosurgical journal that features labeled cover images. The text exceeds a 7:1 contrast ratio in accordance with WC3 accessibility standards. Created using Photoshop and 3D Slicer for Dr. Alexander Weil, Department of Neurosurgery, University of Montreal, 2024

#### **26) Barbara Hanna**

##### *The Anatomist*

"Let conversation cease –

Let Laughter flee –

This is where death delights to train the living."

- Attributed to Giovanni Morgagni, the father of anatomical pathology

#### **27) Steven J. Harrison, PhD**

##### *Cervical Stabilization*

Original airbrush & color pencil depiction of a Haid plate and screws for posterior plating of the cervical spine  
Featured on the cover of BNI Quarterly 7(2), 1991

#### **28) Steven J. Harrison, PhD**

##### *Grading System for Arteriovenous Malformations – Original Concept Drawings, Traditional Paintings, & 1986 JNS Publication*

An important factor in making a recommendation for treatment of a patient with arteriovenous malformation (AVM) is to estimate the risk of surgery for that patient. A simple, broadly applicable grading system that is designed to predict the risk of morbidity and mortality attending the operative treatment of specific AVM's is proposed. The lesion is graded on the basis of size, pattern of venous drainage, and neurological eloquence of adjacent brain.

Published in the article *A Proposed Grading System for Arteriovenous Malformations of the Foramen Magnum* written by Drs. Robert F. Spetzler & Neil A. Martin, 1986

**29) Steven J. Harrison, PhD**

*Optic Nerve Vasculature*

In this traditional line and stippling piece from Steve Harrison, the peripheral and periaxial vascular meshwork supplying the optic nerve is shown: ophthalmic artery, central retinal artery, short posterior ciliary arteries, and the circle of Zinn.

Published in the BNI Quarterly, Vol. 9 No. 2, 1993

**30) Steven J. Harrison, PhD**

*Posterior View of Neck Anatomy*

Original color pencil and pen and ink showing posterior cervical neck anatomy and incision revealing upper cervical vertebrae.

Created for the article *Posterior Atlantoaxial Arthrodesis*, 1991

**31) Steven J. Harrison, PhD**

*Supracellar Granular Cell Tumor*

Steve Harrison created this charcoal pastel and color pencil drawing of a suprasellar tumor invading the third ventricle in the summer of 1989 for the article, "Symptomatic Granular Cell Tumor: Case Report and Review of the Literature" written by Shih Sing Liu.

Published in the BNI Quarterly, July, 1989

**32) Chandrasekaran Kaliaperumal**

*Stress and Bliss in Neurosurgical Training*

These cartoons depict the life of a Neurosurgical trainee in a stressful and in a mindful state. The change noted is a cumulative evolution of a trainee during the training period.

**33) Chandrasekaran Kaliaperumal**

*Women in Neurosurgery*

An abstract art description the beautiful Women's mind.

**34) Kristen Larson Keil**

*Cover Art for Color Atlas of Brainstem Surgery*

This piece was created for the cover of the Color Atlas of Brainstem Surgery by Dr. Robert F. Spetzler et al. The image includes many of the pathologies discussed in the book, including a thalamic glioma, a pontine cavernous malformation, a lateral pontine AVM, a pineal tumor compressing the tectum, as well as an axial section through the midbrain highlighting the nuclei and tracts. The cerebral hemispheres and cerebellum were drawn using traditional graphite pencil, while the brainstem and its surrounding anatomy were painted digitally to draw the eye and reinforce the focus of the book. Kristen manages the Neuroscience Publications department at Barrow Neurological Institute, where she has worked as a medical illustrator since 2006.

**35) Nicholas Kilner-Pontone**

*Pediatric Glioma Excision, Concept Sketches*

2023

**36) Nicholas Kilner-Pontone**

*Pediatric Glioma Excision*

2023

**37) Landry Konan**

*The Power of Sharing*

This is an analogy between Michelangelo's fresco and the synaptic transmission to illustrate the fact the "magic" happens when we share knowledge from one to another.

**38) Kristen Larson Keil**

*Cover Art for Color Atlas of Brainstem Surgery*

This piece was created for the cover of the Color Atlas of Brainstem Surgery by Dr. Robert F. Spetzler et al. The image includes many of the pathologies discussed in the book, including a thalamic glioma, a pontine cavernous malformation, a lateral pontine AVM, a pineal tumor compressing the tectum, as well as an axial section through the midbrain highlighting the nuclei and tracts. The cerebral hemispheres and cerebellum were drawn using traditional graphite pencil, while the brainstem and its surrounding anatomy were painted digitally to draw the eye and reinforce the focus of the book. Kristen manages the Neuroscience Publications department at Barrow Neurological Institute, where she has worked as a medical illustrator since 2006.

**39) Peter M. Lawrence**

*Seven Cavernomas*

A collage of various illustrations created for Dr. Michael T. Lawton's Seven Cavernomas Series, 2024

**40) Peter M. Lawrence**

*Scalp AVM 1*

*Created using traditional carbon dust*

**40) Peter M. Lawrence**

*Scalp AVM 2*

*Created using traditional carbon dust*

**41) Vikas Munjal**

*The Brain UnEarthed*

"The Brain Unearthed" explores the origins of neurosurgery by symbolically depicting the human brain as a fundamental discovery emerging from the depths of the earth. This artwork represents the intersection of anatomical science and historical exploration, illustrating how neurosurgery has evolved from its ancient roots to the present day. The image evokes a sense of reverence for the intricate complexity of the brain and the profound journey of understanding that continues to shape the field.

**42) Franciska Otaner**

*The Depth of Thought*

"The Depth of Thought" illustrates the brain, the spinal cord, and the cell body of a neuron, all set against a colorful backdrop of space, with two fish swimming around a nebula. The blend of fish and stars symbolizes depth; both space and the ocean extend through great, unknown reaches. This profoundness mirrors our own nervous system, where within 100 billion neurons and 100 trillion synaptic connections, great complexity and mystery remain. This piece highlights the endless exploration and discovery within both our external world and our own minds.



**43) Franciska Otaner**

*The Tree of Life*

"The Tree of Life portrays a woman sleeping under a Weeping Willow, where the branches resemble neurons. As she falls into deep sleep, symbolized by the vibrant, abstract background, the neurons above her take charge, just as our neurons do without our awareness. They guide and protect us, sustain our life and manage our every function even in the depths of slumber.

**44) Carolina Moreno Pace**

*A Grandfather Stroke*

This piece is a tribute to my grandfather, who passed away in October 2022 at the age of 65, following a stroke. The same fate befell his parents, and through their loss, I found my path to neurosurgery. It is often in the shadows of our greatest sorrows that we discover our deepest passions. In the end, family is the most precious gift we have, guiding us through life's journey, even when they are no longer by our side.

**45) Dave Peace**

*Posterior view with the cerebellum and the left half of the roof of the fourth ventricle removed*

Published in the article *Microsurgical Anatomy of the Region of the Foramen Magnum* written by Drs. Evandro de Oliveira & Albert L. Rhoton, Jr., 1985

**46) Dave Peace**

*Instruments for aneurysm dissection*

A.) A 40-degree teardrop dissector, separating perforating branches and arachnoidal bands from the neck of a basilar artery aneurysm. A blunt-tip, 5-French, suction tube provides suction and facilitates retraction of the aneurysm neck for dissection. Structures in the exposure include the superior cerebellar, posterior communicating, posterior cerebral, and posterior thalamoperforating arteries and the oculomotor nerve.

B.) The wall of an aneurysm being retracted with a spatula dissector, and tough arachnoidal bands around the neck being divided with microscissors.

Published in *Rhoton Cranial Anatomy and Surgical Approaches*

**47) Spencer Phippin & Mark Schornak**

*Spinal AVM classification*

Mark Schornak's concept sketch, color study, and pen & ink (mastercopy by Spencer Phippen) showing an extradural spinal arteriovenous malformation in the cervical region

**48) James D. Postier II, Dr. Jonathan M. Morris**

*Hematoma in pediatric patient*

© 2024 Mayo Foundation for Medical Education and Research (MFMER). All rights reserved

No photography or photos please.

**49) David Rini**

*Craniopagus Twins*

**50) David Rini**

*Block Sisters Craniopagus Twins*

Created for Ben Carson, MD, 2004



**51) David Rini**

*Bajani Sisters Craniopagus Twins*

Created for Ben Carson, MD, 2003

**52) David Rini**

*Cavernous Sinus Meningioma removal*

Published in The Neurosurgical Atlas, Aaron Cohen-Gadol, MD, 2018

**53) Amanda Cyntia Lima Fonseca Rodrigues**

*Spinal Symphony*

Spinal Symphony is a fascinating black-and-white art that masterfully depicts the human spine using an intricate line art technique, bringing the vertebral column to life through a series of crafted lines that echo the aesthetics of topographic maps. Each curve and contour of the spine is accentuated by varying shades from deep black to light grey, creating a dynamic and three-dimensional visual effect. The surrounding lines flow gracefully, reaching the harmonious interplay of muscles and tissues, and evoke a sense of movement and fluidity, capturing the anatomical beauty of the spine, and showcasing its strength and flexibility.

**54) Amanda Cyntia Lima Fonseca Rodrigues**

*The Vertebral Landscape*

The Vertebral Landscape is a black-and-white art that artistically renders the human spine using a line art technique reminiscent of topographic maps. This artwork captures the spine's complex structure through meticulously drawn lines that mimic the natural curves and forms of vertebrae. The dynamic interplay of light and shadow across this art creates a special three-dimensional effect, highlighting the spine's complex textures and shapes. Varying shades, from deep black to light grey, are skillfully employed to enhance the depth and intricacy of the vertebral column, evoking the appearance of mountain ridges and valleys. The flowing lines surrounding the spine symbolize the interconnection and fluidity of our body's central support structure.

**55) Sumaiya Sayeed**

*It Takes Two to Tango*

In the operating room, the art of neurosurgery lies in the coordinated dance between two surgeons. To co-operate with someone is to know your co-surgeon, to complement each other without obstructing one another.

**56) Mark Schornak**

*Bifrontal pericranial flap*

Created using traditional airbrush and acrylic paint, 1993

**57) Mark Schornak**

*Type IV-C spinal arteriovenous malformation*

Created as cover art for the Spring, 1992 cover of the Barrow Quarterly. The background represents a radiographic series showing high-flow shunting through the arteriovenous fistula. Made with a combination of airbrush, alkyds, and watercolor.

### 58) Mark Schornak

#### *Color Atlas of Microneurosurgery*

This illustration, drawn in pencil with color added in Photoshop, depicts a comprehensive overview of surgical techniques and various neuropathologies referenced within the textbook: extracranial revascularization, spinal tumors, arteriovenous malformations, carotid bifurcation stenosis, thrombus and embolus, internal carotid artery (ICA) dissecting aneurysm with cervical to petrous ICA saphenous vein bypass, vertebral artery stenosis with endovascular stent, ventral arteriovenous fistula, extramedullary tumor, and intramedullary tumor & cyst. Published on the cover of Color Atlas of Microneurosurgery, Volume 3, Thime Medical Publishing, Wolfgang T. Koos, Robert F. Spetzler, ©2000, Barrow

### 59) Mark Schornak

#### *Barrow Quarterly Covers: Meyer's Loop, Endovascular Treatment of Orbital Lesions, Dural Arteriovenous Fistulae*

### 60) Ian Suk

#### *All-posterior en bloc resection of large cervical sarcoma tumor*

Showing initial critical steps in an all-posterior cervical resection of a large sarcoma tumor with intradural infiltration strangulating the spinal cord and affecting multiple vertebral levels. A comprehensive, posterolateral oblique view with corresponding axial sections reveals the precarious location of the tumor and its proximity to critical surrounding structures such as pharynx, trachea, jugular and carotid vessels. Created with pencil and Photoshop. Published in *Operative Neurosurgery*, Dec 2015

### 61) Ian Suk

#### *Stereotactic biopsy of contralateral pontine tumor*

Following a bur hole craniectomy, the needle traverses a plethora of critical neurovascular structures to reach the tumor. Major landmark structures to avoid, such as the sinuses, ventricles, circle of Willis, and tentorium cerebelli, are included to accurately depict the needle's course in 3-dimensional space. Created with pencil and Photoshop. Published in *Journal of Neurosurgery*, March, 2005

### 62) Ian Suk

#### *En Bloc total sacrectomy performed in a single stage through a posterior approach*

Complex en bloc resection required intimate knowledge of critical landmark anatomy including pelvic vasculature, sacral plexus, GI anatomy, and lumbosacral trunk. Illustration is a comprehensive view showing the final critical step of dividing the internal iliac vessels to resect the specimen in one piece. Posterior oblique view shows a plethora of transparent anatomy to reveal their position in 3d space. Top figures outline a series of sequential steps to final rendering in this layered approach. Created with pencil and Photoshop. Published in *Neurosurgery*, July, 2008

### 63) Aureliana Toma

#### *Taming The Beast*

This charcoal drawing represents a basilar artery aneurysm. "Taming" this beast requires utmost skill, resilience and precision – qualities every neurosurgeon must master. Referring to the aneurysm as a beast captures the inherent danger and unpredictability of the condition. The artwork is a powerful testament to the relentless battle fought in the operating room, where mastery over such life-threatening conditions is a matter of survival and hope.

#### **64) Michael J. Ward**

##### *Wild Signals*

This piece was inspired by the many surgical epilepsy patients who generously donated their time to my research endeavors. Working with them in the epilepsy monitoring unit, I developed a deep passion for neurosurgery and the unique opportunities it presents for formulating and testing hypotheses that can rapidly produce substantial clinical and basic scientific impact. Each of those patients contributed greatly to my journey to medical school at UCLA and my still growing motivation to explore the confluence of science, art, and medicine as a neurosurgeon.

#### **65) Scott Weldon**

##### *Far Lateral Approach*

The far lateral approach begins as the retrosigmoid approach, but the craniotomy is extended inferiorly to open foramen magnum and expose the cervical spinal cord. This illustration depicts a hypoglossal schwannoma where, usually, cranial nerves IX, X, and XI are displaced posteriorly, and the brainstem and cervical spinal cord are compressed.

Published in the Atlas of Neurotologic and Lateral Skull Base Surgery by John S. Oghalai, MD and Colin L.W. Driscoll, MD, 2016

#### **66) Scott Weldon**

##### *Combined Approach to the Middle and Posterior Fossa*

The approach combines a presigmoid, retrolabyrinthine craniotomy with the middle fossa craniotomy. The two craniotomies are connected by splitting the superior petrosal sinus and dividing the tentorium. After dividing the tentorium, the retractors work much more effectively, and visualization of the petroclival junction is substantially enhanced. This illustration depicts all the structures that can be seen after the opening has been completed.

Published in the Atlas of Neurotologic and Lateral Skull Base Surgery by John S. Oghalai, MD and Colin L.W. Driscoll, MD, 2016

#### **67) Bill Westwood**

##### *Transseptal, Transsphenoidal Approach to the Pituitary*

One of five wax painted models from an ENT and Neurosurgeon exhibit, displayed at the 1977 AMA conference, teaching the surgical technique of operating on the pituitary via the nose.

#### **68) William Westwood**

*Nasopharynx (transseptal-pituitary surgery). Transseptal pituitary surgery (nasopharynx).*

© 2024 Mayo Foundation for Medical Education and Research (MFMER). All rights reserved

*No photography or photos please.*

#### **69) William Westwood**

*Nasopharynx (transseptal-pituitary surgery). Transseptal pituitary surgery (nasopharynx).*

© 2024 Mayo Foundation for Medical Education and Research (MFMER). All rights reserved

*No photography or photos please.*

#### **70) William Westwood**

*Nasopharynx (transseptal-pituitary surgery). Transseptal pituitary surgery (nasopharynx).*

© 2024 Mayo Foundation for Medical Education and Research (MFMER). All rights reserved

*No photography or photos please.*

**71) William Westwood**

*Nasopharynx (transseptal-pituitary surgery). Transseptal pituitary surgery (nasopharynx).*

© 2024 Mayo Foundation for Medical Education and Research (MFMER). All rights reserved

*No photography or photos please.*

**72) William Westwood, Peter McConahey**

*Nasopharynx (transseptal-pituitary surgery). Transseptal pituitary surgery (nasopharynx).*

© 2024 Mayo Foundation for Medical Education and Research (MFMER). All rights reserved

*No photography or photos please.*

**73) Celina Yang**

*Scarlet Synapses*

This fluorescence microscopy image depicts a mouse hippocampal slice meticulously prepared over a month-long process: beginning with a precise viral injection into the CA3 hippocampus via stereotaxic surgery, followed by the mouse navigating through behavioral tasks after recovery, and eventually culminating in this vibrant display post-perfusion and antibody staining after brain extraction. The brilliance of the image mirrors the intensity of viral expression, with the CA3 region glowing as the epicenter of this luminous network, extending its tendrils across the brain's intricate circuitry. Immersed in the fusion of science and art, I've come to appreciate the profound interconnectedness of my daily endeavors—from laboratory discoveries and patient interactions to the expansive realms of book learning. This reflective artistry has intricately shaped my journey in medical education, casting light on this nuanced path toward becoming a neurosurgeon.

**74) John Zubro**

*Sanctum Sanctorum*

The Sanctum Sanctorum in Judaism refers to the "Holy of Holies". In Hinduism it is the 'Garbhagriha', the house within the house. In neurosurgery, it is the operating room hidden deep within a sprawling hospital complex. But it is also the seat of our very consciousness, our brain - ourselves - so carefully tucked into its many layered investiture.