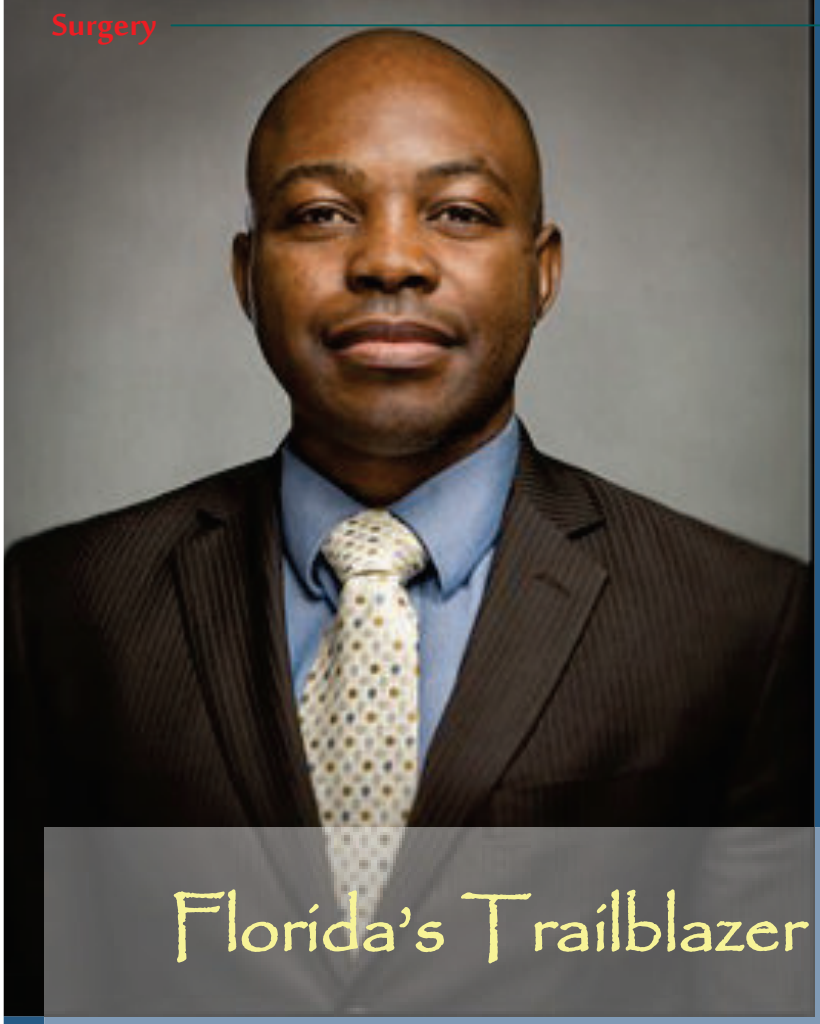

Dr. Arnold Etame

Florida's Trailblazer In Neurosurgery

Deep inside US south-eastern State of Florida, the neurological surgeon is breaking new grounds in brain surgery especially by using trending laser technology.

At first sight, the young baby-face Dr. Arnold Etame could be mistaken for an undergraduate student in the campus of the University of South Florida where he is actually an Assistant Professor of Oncology in the College of Medicine. Gaining reputation at the Moffit Cancer Center where his serves as a neurological surgeon and scientist specializing in Neuro-Oncology, Dr. Etame performs surgeries of the brain with image-guided stereotactic techniques. He also directs a very active awake-brain tumor resection program for patients with tumors close to critical areas for speech and movement. He co-directs the stereostactic radiosurgery program for brain and spine metastatic tumors.

Dr. Etame is a favourite with patients with whom he communicates efficiently for desired results. As a researcher, Dr. Etame is into enhanced delivery of targeted therapeutics across the blood-brain barrier for malignant and metastatic brain tumors using nanotechnology and focused ultrasound disruption of the blood-brain barrier. He is also a principal investigator for clinical trial protocols in patients with malignant brain tumors.

Dr. Etame arrived the USA after graduating from the prestigious Sasse Boys' College in the mountain-side town of Buea. He received his B.S degree in Chemistry Magna Cum Laude from the State University New York at New Paltz before proceeding to the University of Iowa College of Medicine where he completed his MD degree with distinction in Research. He was even elected to the Alpha Omega Alpha Honor Medical Society as well as the Gold Humanism Medical Society. He completed his Neurosurgery Specialization at the University of Michigan.

Dr Etame later moved to Canada where under the mentorship of renowned neurosurgeon and scientist, Dr. James Rutka, he was awarded a Neuro-oncology Research Fellowship with the Labatt Brain Tumour Research Centre at the Hospital for Sick Children in Toronto, Canada. Meanwhile, Dr. Etame pursued and completed his PhD in the Department of Laboratory Medicine and Pathobiology at the University of Toronto.

He has been honored with several awards such as the prestigious Wilder Penfield Fellowship Award from the Congress of Neurological Surgeons. He is also member of the American Association of Neurological Surgeons as well as the Congress of Neurological Surgeons.

By David Nkeng

Dr. Arnold Etame

Neurological Surgeon, Neuro-Oncology Specialist at the Moffit Cancer Center; Assistant Professor of Oncology at the University of South Florida, College of Medicine.

Welcome to Success Story E-Magazine Dr Arnold Etame. Some Cameroonians would be surprised that one of their own is in Florida excelling in neurosurgery. How did you get here, Dr Arnold Etame?

Thank you very much for the opportunity. I grew up in Limbe and moved to the United States after High School. After obtaining a BS in Biochemistry at State University of New York, I did my Medical Doctorate, MD, at University of Iowa College of Medicine and later pursued a Neurosurgery specialisation at University of Michigan for seven years. A PhD at University of Toronto, Canada was followed by a Brain Tumor Fellowship at the LaBatt Brain Tumor Centre – Hospital for Sick Children in Toronto, Canada. Currently, I am an attending Neurosurgeon and Scientist at the Moffitt Cancer Center, Tampa Florida and also Professor at the University of South Florida College Of Medicine.

The Zika Virus is a growing global cause for concern as one of its effects is microcephaly in newborns. Any surgical options to repair this brain damage?

Microcephaly basically means a small head which implies small brain. If the brain cannot grow then development is restricted. Most common causes are secondary to infections that are transmitted to the fetus during pregnancy that is in-utero infections. For those we have no surgical options. Another common cause of microcephaly could be premature closure of the sutures of the skull. These sutures represent the cartilaginous points where skull bones connect. The skull is able to expand while these sutures are still open. The sutures eventually close or calcify with time. Sometimes, these sutures can close or calcify early a condition called craniosynostosis. We typically can repair craniosynostosis through a procedure called craniectomy with reconstruction.

How about macrocephaly?

Macrocephaly is due to untreated hydrocephalus; an obstruction of spinal fluid flow in the brain resulting in enlargement of the spinal fluid chambers - ventricles. We treat that by diverting the spinal fluid from the brain to ei-

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"In my current practice, I perform on average 4-6 brain tumor surgeries weekly. My practice is strictly focused on patients with brain and spine cancers. I perform awake-surgeries in situations where the tumor is next to areas that are critical to movement and speech. I also treat brain tumor patients with focused radiation - radiosurgery. We also have the laser technology."

ther the peritoneal cavity in the abdomen, pleural cavity lungs, or the right atrium of the heart. This procedure is called shunting. If hydrocephalus is recognized early with prenatal and postnatal ultrasounds through the anterior fontanelle - soft spot, we can shunt early and keep the ventricles in the brain smaller. If untreated, the suture of the skull expand secondary to expansion of the ventricles and cause macrocephaly - large head. This is associated with developmental delays etc because there is less room for the brain to grow since it is filled with fluid. Infections either during pregnancy or shortly after birth are the most common causes .

Would you name other common ailments posing as threats to the human brain today and surgical remedies available?

First, I will name Cancer. Surgeries provide diagnosis and in some cases can be curative. There are times also when intent of surgery is not curative but rather to relieve symptoms. There are also Strokes. Surgeries could be made on blood vessels to prevent strokes or actually the removal of portions of the skull could be made to relieve pressure after a major stroke., We also have infections. Surgeries could aspirate or remove brain abscesses. Lifesaving surgeries could help alleviate trauma.

Fascinating. What attracted you to brain surgery, Dr. Etame?

I have always been fascinated with the brain. It is our main essence as humans – responsible for who we are, what we think, and how we perceive the world. I enjoy the complexity and challenges of the surgeries – Neurosurgery has been described as the ultimate emotional roller-coaster. Your highs are very high, and your lows are very low. More importantly, the opportunity to help people in very difficult times is very appealing.

How many patients have you operated on so far, Dr Etame and what were some of your challenges?

The most challenges of course were during my training/specialization four years ago. In those seven years of specialization, I was involved in over 1400 surgeries - brain and spine. It is a period when you learn from your mistakes and those of others. It is also a period when you learn how unforgiving and unpredictable the brain can be. Neurosurgery is very rigorous – long hours, long surgeries, critical patients, and a very narrow margin for error.

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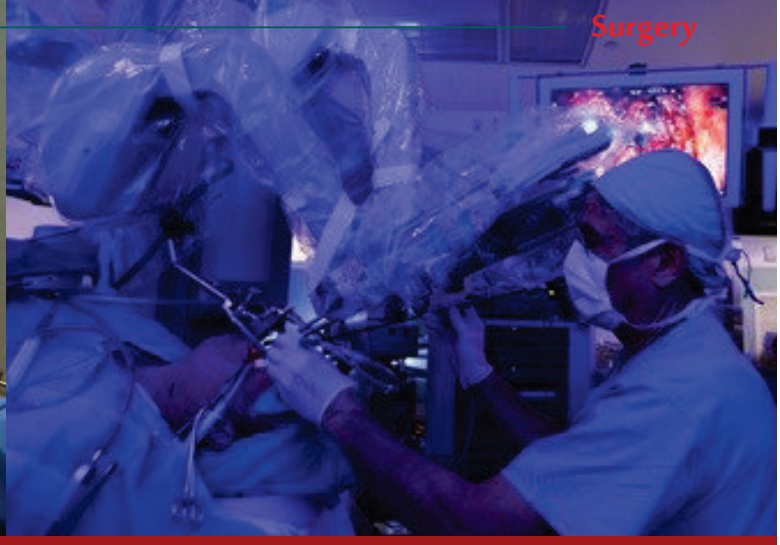

"The laser technology allows us to treat tumors that are deep-seated in the brain or those that have failed the standard therapies of radiation and chemotherapy. Hence, it is a new avenue of hope for patients with aggressive cancers/tumors. We have computer navigation systems, which use high-resolution MRI or CT pictures for surgical planning. They function very similarly to Global Positioning Satellites (GPS) in that they can provide coordinates for any space in the brain. Basically with such systems, you can target any space in the brain occupied by tumor."

awake-surgeries in situations where the tumor is next to areas that are critical to movement and speech. The patients stay awake during surgery so their function can be tested as we remove tumors. I also treat brain tumor patients with focused radiation - radiosurgery. We also have the laser technology.

How are advancements in laser technology helping you in the treatment of your patients?

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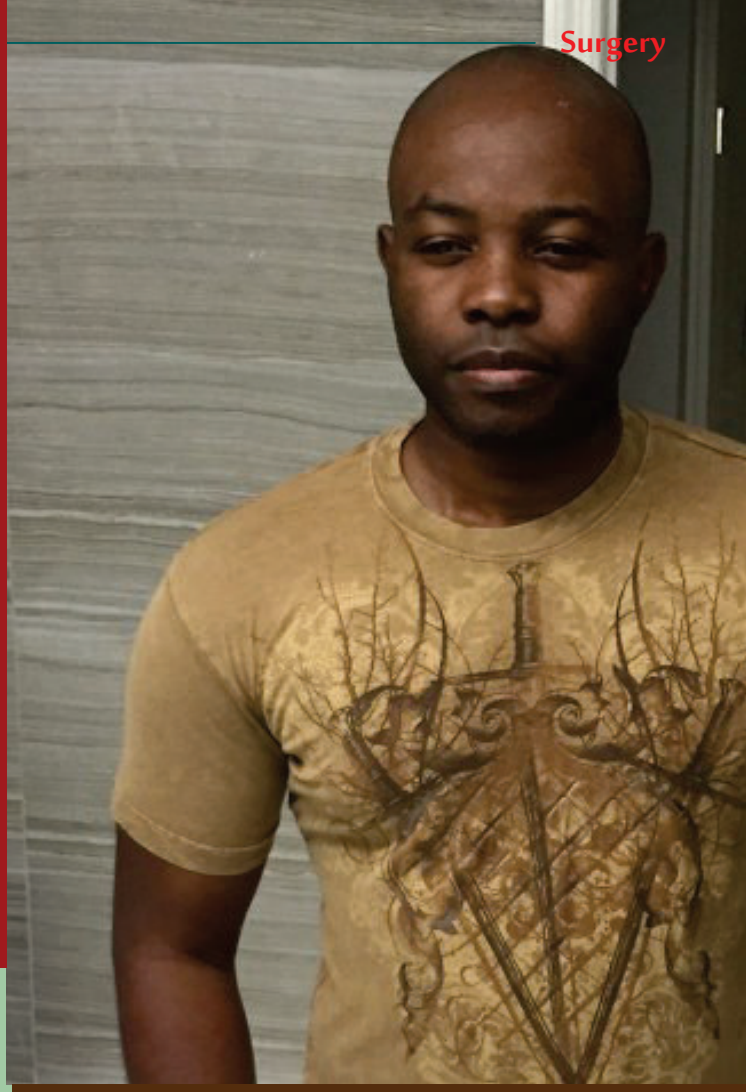
What importance do you give to communicating with your patients and how does that help in the treatment process?

Communication is one of the most critical components of medical practice. A lot of medical errors occur secondary to poor communication. When you communicate well with patients, they are in a better position to make the appropriate decisions with respect to management recommendations. The challenge is always being able to describing complex medical terms in simple language especially for a specialty such as neurosurgery. So in my scenario, I always have MRI or CT


The Congress
of
Neurological Surgeons
Wilder Penfield Fellowship
presented to
Arnold B. Krame, MD
at the Sixtieth Annual Meeting
held in San Francisco, California
this nineteenth day of October,
two thousand and ten.

"Cameroonians as a whole are very talented. That talent can certainly be harnessed in advancements back home. In healthcare, for example, there are several avenues for collaboration. These could include government-led symposiums/workshops where we can share ideas and expertise. There are many advances in Cancer diagnosis and therapeutics that could be translated back in Cameroon. Integrating healthcare professionals abroad into healthcare institutions in Cameroon could be advantageous. Visiting professor opportunities could facilitate exchange of ideas and expertise."



scans where I can show patients exactly where their tumors are located in the brain and how we plan to remove their tumors. So the visual component (MRI/CT) is very helpful as a communication tool.

Dr. Etame, what are your impressions about the strength of Cameroon in the Diaspora?

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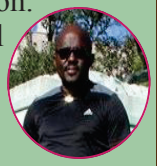
Do you plan to have any projects alone or with others back in Cameroon?

My areas of interest are Oncology - Cancer - and Neurosurgery. Hopefully in the near future, I would like to be involved in neurosurgical care back in Cameroon. Some of the awake-surgeries that I perform for tumors can be implemented safely back home. These patients do not require general anesthesia that makes it is very feasible back home. I would also like to explore ways to improve treatment of brain cancers with focus radiation, in Cameroon. Lastly, getting involved as part of the medical school faculty is a goal.



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