

Dear Colleagues,

Are the years slipping away from you faster than you believed possible? Do you feel at times like you're on a merry-go-round, making little difference in your world, and unable to get off? We'd like to suggest that you take a risk, give yourself and your spouse a break, and serve short term with PAACS. In just two weeks you will meet some of Africa's best and brightest young residents, incredible people, astounding cultures, and long term workers you will never forget. Because you invested in residents who need training, you will also leave behind you a legacy that will build over time, whether you return many times or never return again. You will also find out what many other surgeons we've met have experienced, and that is that God can and will take care of your practice while you're away! Please come and join our team – even if it's for only a few weeks, and experience one of our profession's greatest joys – giving ourselves away to help others less fortunate and honoring God with our time and gifts.

The Editors



The Pan-African Academy of Christian Surgeons (PAACS)

BULLETIN #119

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Blast from the past – The first two PAACS Residents with Founder Dave Thompson. Left is Harison Razamimanana and right is Paul Buaki Baltazar.

Changing the spiritual and physical health of a continent

Our vision: PAACS trained surgeons living the gospel and ministering to the sick.

Our Mission: PAACS exists to train and disciple African surgeons to glorify God and to provide excellent, compassionate care to those most in need.

Our goal: To train and disciple 100 African surgeons by 2020.

In this Newsletter:

[PAACS Senior Residents Attend CMDA-CMDE Conference](#)
[Surgeon to Leave Service in Ethiopia](#)
[Annual PAACS Exam](#)
[A View of PAACS from a Partner](#)
[News Shorts](#)

Harpur PAACS Conference Room
COSECSA to Examine Malamulo PAACS Program
Need for Short-term Coverage
PAACS Commission Meeting Dates Changed

[Announcements:](#)

PAACS Logowear
PAACS Grocery Tote
Free E-book – Reconstructive Surgery

[Prayer Requests](#)

PAACS SENIOR RESIDENTS ATTEND CMDA-CMDE CONFERENCE:

Ten fourth and fifth year PAACS residents attended the 34th CMDA Continuing Medical Dental Education conference held on Evia Island, Greece April 28 – May 8. This year is the first time that the conference for Africa and Middle East was held off the continent of Africa. There was a record attendance with 715 attendees from 75 countries around the globe – Africa, Europe, Asia, S. and N. America.



It is also a great time for the PAACS team to get together. Ten PAACS trainees attended, as well as two graduates, eighteen faculty members and 9 Commission and Advisory Council members. Jean Faya Yaradouno (Guinea) and Jean Claude Bataneni (DRC) were the two PAACS graduates. PAACS Faculty attending included Wendy Willmore from Arusha; Carol Spears, Russ White, Todd Lavery, Eric Mitchell and Dan Galat from Tenwek; Jim Brown and Steve Sparks from Mbingo Baptist Hospital; Dave Thompson from Menouf, Egypt; Jon Pollock, Paul Gray & Robert Greene from Ethiopia; Joe Starke and Tabetha Bradley from Galmi, Niger; Keir Thelander and Zachary and Jen O'Connor from Bongolo, and Ryan Hayton from Malawi. Andrew Chew, the Australian surgeon who will be joining the team at Soddo Christian Hospital in 2015 was also there. PAACS Administrators

included Bruce Steffes and Bill Wood and the PAACS Commission and Advisory Council members present were Adrian Park, Carl Haisch, Bruce MacFadyen, Wayne Koch, Alan Johnson, Louis Pisters, John Mellinger and Rebekah Kim.

The three residents from Mbingo Baptist Hospital who were scheduled to attend were unable to come due to the refusal of the French Embassy in Cameroon to grant them visas.

Executive Director Bruce Steffes gave an update about PAACS one evening to all the conference attendees. PAACS was birthed at the 1996 CMDA-CMDE Conference at Brackenhurst International Conference in Limuru, Kenya, and many have been watching it with a sense of proprietary interest. All rejoiced at what the Lord is doing with surgical education in Africa.



Jack Okumu, Damaris Ndambuki and Jacques Ebhele hold their prizes in Greece.

During the first week, each of the PAACS residents each presented a research paper in a juried competition. The second and final phase of that competition was held on the next week, with the following results:

- **First Place:** Jack Okumu (Tenwek) – “Simple orchiectomy with Simultaneous TURP vs. Orchiectomy Alone in the Palliation of Advanced Prostatic Cancer”
- **Second Place:** Jacques Ebhele (Gabon) “Characteristics of Patients with Thyroid Masses at Bongolo Hospital, Gabon, Central Africa”
- **Third Place:** Damaris Ndambuki (Tenwek) “Electroincision for Post-Esophagectomy Anastomotic Stricture”
- **Finalist:** Nzanzu K. Anatole (Gabon) “Colorectal Cancer – Bongolo Hospital with 11 cases”
- **Finalist:** Elijah Mwaura (Tenwek) – “Pattern of Patients Presenting with Peptic Ulcer Perforation and Prediction of Outcome – A Rural Hospital Experience”
- Segni Bekele (Ethiopia) – “Vascular Surgery in Ethiopia – A Single Center Experience”
- Dejene Desalegn (Ethiopia) – “A Prospective Study of Orthopedic Trauma in Road Traffic Accidents”

- Simplice Tchoba (Gabon) “Use of Spinal Anesthesia in Laparoscopic Inguinal Hernia Repair in Resource Limited Environment”
- Chege Macharia (Kijabe) – “Latissimus Dorsi Myocutaneous Flaps”
- Philip Blasto (Tenwek) – “Ileosigmoid Knotting”

SURGEON TO LEAVE SERVICE IN ETHIOPIA

Dr. Paul Gray will be returning to the United States after six years of service at Soddo Christian Hospital. Gray and his family moved to SCH in 2008 after his residency and trauma fellowship. Subsequently, two other surgeons joined him but then had to leave for personal and family reasons. The program has grown significantly under Paul Gray’s leadership, graduating a total of five surgeons and advancing seventeen others through the ranks.

Bruce Steffes, PAACS Executive Director, noted, “The program at Soddo was in academic probation when Paul came, but under Paul’s leadership, it became one of the stronger academic programs within PAACS. Paul did a heroic job in dealing with the challenging demands of the Ethiopian bureaucracy and eventually obtained accreditation from the government. The present academic curriculum for all of PAACS is largely based upon work that Paul did to satisfy the rigorous demands of the Ethiopian government. He expanded the program to Myung Sung Christian Medical Center in Addis Ababa with Jon Pollock and Dr. Chi Chung’s able assistance to include a total of nine residents in training. PAACS is much stronger for Paul’s contributions and we are praying that God will lead the Grays back into PAACS sometime in the future.”

Paul writes:

After six years at Soddo Christian Hospital, Becca and I are transitioning back to the United States. We are very thankful to God for these years and the privilege of being a part of this work. I (Paul) am learning some lessons about limitations and how to pace myself in life. We feel confident that God is guiding us back for a period of rest and recuperation, but we are equally confident about His guidance, blessing and provision over these years in Ethiopia. Our prayer and intent is to continue to be involved in PAACS in whatever capacities God would provide in the upcoming years.



We want to specifically extend our thanks to PAACS and all the people associated with it. It has been an honor to serve with PAACS and we are humbled by the support and love that we have received over the years. As we leave, we want to thank everyone and express our love.

God bless, Paul, Becca, Nathan, and Lydia Gray

Andrew Chew will be moving to Soddo in January, 2015, but in the intervening six months, there is a huge need for short-term surgeons who can work independently and help train the residents. If you

can help, please contact Elaine Graybeal at World Medical Mission (EGraybeal@samaritan.org) or Jeremy Gabrysch (Jeremy@soddo.org).

ANNUAL PAACS EXAM

The annual PAACS examination is scheduled for Saturday, June 7. All PAACS residents are required to take a 200 question exam to evaluate their progress and surgical knowledge. First and second year residents will take a “junior” exam which consists of 200 questions emphasizing basic science. There will be 120 questions on basic science and the basic principles of surgery and 80 on foundational clinical knowledge. The “senior” exam has a stronger emphasis on more complex clinical thinking, and will include 44 questions on basic science and 156 on surgical therapeutics.

Let's see how you do on these questions from a previous year!

A patient develops a high fistula output through the wound after a laparotomy and you are concerned about the development of electrolyte and acid-base abnormalities. An aliquot of the fluid is sent for electrolyte analysis and returns as below:

Na (mEq/L)	K (mEq/L)	Cl (mEq/L)	HCO ₃ ⁻ (mEq/L)
131	7	105	28

What is the best intravenous fluid to use to replace this high-output loss?

- A. Normal Saline (0.9N NaCl)
- B. Half-normal saline (0.45N NaCl)
- C. 5% dextrose in water (D₅W)
- D. Lactated Ringers (Hartmann's solution)

Answer: D. Normal saline is hypertonic and hypernatremia (osmolality 308, 154 mEq/L of both sodium and chloride) for this purpose and has no bicarbonate. Dextrose in water has no electrolytes or bicarbonate. Half normal saline is hypotonic (without dextrose added), has only 77 mEq/L of both sodium and chloride) and has no bicarbonate. Lactated Ringers (Hartmann's) solution has 130 mEq/L of sodium; 109 mEq/L of chloride, 4 mEq of potassium and 28 mEq of lactate (which, when metabolized, gives 28 mEq/L of bicarbonate. It has an osmolality of 273. (Schwartz, 9th ed., p. 60).

A 55 year old man presents to your clinic with a six month history of left nasal obstruction, scant epistaxis, mild proptosis and epiphora of the left eye, and numbness of the left cheek over the distribution of the V- 2 cranial nerve. The most likely diagnosis would be:

- A. Squamous cell carcinoma of the left maxillary/ethmoid sinus
- B. Squamous cell carcinoma of the left frontal sinus
- C. Inverting papilloma of the left nasal cavity
- D. Angiofibroma of the sphenoid sinus
- E. Severe nasal polyps

Answer: A. The numbness over V-2 should make one think of a malignancy as should the epiphora and proptosis of the eye. Malignancies of the frontal sinus are rare and would present with numbness of V-1 and bony expansion or erosion of the frontal bone. Inverting papilloma and nasal polyps would cause nasal obstruction, but rarely proptosis and should not present with objective numbness. Angiofibroma occurs at a younger age (7-21 years). (Schwartz, 9th ed., p. 501).

The exam takes four hours. Residents in the first three years of training who do not have English as one of their primary languages are given an additional hour to complete the examination. Those

who do not pass the first time around will be given a chance to do some additional study and a chance to pass a remediation exam given in late July.

Recently, PAACS has begun to upload its 5,000 question database to a proprietary software system (www.examssoft.com). This software has the capability to allow computerized exam administration in the future and contains an extensive capability for individual feedback and evaluation. The system is used at many medical schools and national accreditation agencies in North America. It will also allow the development of standardized quizzes over the assigned reading and give residents immediate feedback on their performance – while freeing up the PAACS faculty for more critical duties.

A VIEW OF PAACS FROM A PARTNER:

Ed Bos, President of Worldwide Lab Improvement (WWLAB), of Kalamazoo, Michigan has been working closely with PAACS for several years. WWLAB actually officially started their ministry a year before PAACS was founded.

Worldwide Lab Improvement, Inc. is a non-profit 501(c)(3) corporation serving the laboratories in Christian mission hospitals and clinics in developing countries by providing affordable and durable equipment, supplies, training and consulting. They are a real blessing to many of the world’s mission hospitals as this table from their website (www.wwlab.org) reveals:

SUMMARY	1996	1999	2003	2008	2009	2010	2011	2013
REQUESTS RESPONDED TO	46	151	320	427	455	437	474	424
MISSION HOSPITALS AND CLINICS SERVED	23	70	139	132	142	150	145	110
MISSION ORGANIZATIONS REPRESENTED	N/A	54	98	118	107	113	109	94
COUNTRIES	18	35	58	47	52	56	58	49

Ed Bos characterizes himself as a problem solver. In response to the needs that he saw in the mission hospitals, his organization developed a proprietary Worldwide Lab Improvement Software Solutions program designed to automate internal lab workflow procedures and allow for retrieval of lab results by patient visit date. WWLSS also computerizes the total hospital and pharmacy inventory, patient registration, and other functions.

In addition to the PAACS module for the operating room, they are finishing work on a module to schedule surgical cases in multiple operating rooms.

In their spring newsletter (<http://www.wwlab.org/newsletterspring2014.pdf>) Ed wrote, “A unique delight ... has been developing, installing and training staff in the use of a customized version of the software for PAACS (Pan-African Academy of Christian Surgeons) programs in various locations in Africa. PAACS is a tremendous ministry which trains national surgeons and it is an honor to partner with them in this ongoing effort.”

He added,

“Several years ago, when Bruce Steffes was telling me about PAACS, I made a commitment to him as an individual and to PAACS. It has taken us longer than we thought to develop the PAACS software module and incorporate it into our WWLSS system for mission hospitals. We continue to improve it and add functionality that the missionary surgeons want.

“As I have visited the PAACS training sites, delivering computers, meeting and training missionary surgeons and residents, I have had a unique opportunity to observe both PAACS and the hospitals where they work. We have worked with most of these hospitals for many years before the training programs opened. However, I have obtained a new perspective on the impact of PAACS.

“Most people find it hard to internalize the testimonies (like this one) that you read in news letters sent out by mission organizations. Pictures do that best, but it is hard to really show readers pictures of surgeries and the broader impact of surgery at a mission hospital.

“We as non-surgeons have some grasp of the magic that occurs behind closed doors in the operating room, but that is only part of the impact. The not-so-obvious byproducts include the opportunity to witness to those patients and families who would never have come to the hospital except for their need for surgery. Add to that the reputation as a teaching hospital which draws other general traffic to the hospital and the revenue from elective surgery that often supports other departments, and the impact of a training program enlarges. From what I have seen, surgery is different in its impact on patients than outpatient services are, because the patients tend to be in contact with the Christian staff for a much longer time, may be more concerned about life and death (and its spiritual impact) and sometimes there is a deeper emotional connection.

“Another significant impact is that training national physicians in surgery or medicine has a lasting effect on the host country. Nationals end up with recognized specialty training in a country where there is little opportunity to gain it otherwise. Because of their knowledge, skills, and attitudes, the graduating surgeons end up in positions of leadership in medical and political arenas in their countries. Since they are both trained as surgeons and disciplined as followers of Christ, they bring a different mindset to the country’s problems.”



James Borody, technician with WWL, helps Joe Starke and Yakoubou Sanoussi with the new software installed there in 2012.

The software development for the PAACS module was done by contract with an outside programmer until the summer of 2012. At that time, Tom Lohrmann began to work with PAACS and WWLab as a volunteer. He brought the product to fruition. Working early in the morning and on weekends

outside of his day job at Bowers Manufacturing in Portage, MI, he had contributed by the end of March over 480 hours in development and 120 hours in site support and upgrade. All were contributed without charge to PAACS.

Recently, Lohrmann traveled with Bos to the PAACS program in Menouf, Egypt to help install the server and program.

He wrote, "It was an incredible trip. The development of the custom software for PAACS has been a challenge and it has been good to realize that we have had a small part in helping these amazing missionary surgeons serve Christ and the people of their countries."

Steffes comments, "We are coming close to having the system up and running at all of our training programs. The data we are collecting is valuable in analyzing our training programs and also in giving us a vitally needed snapshot of surgical needs in the developing world. We are deeply appreciative of Ed Bos and all his co-workers at Worldwide Lab for the huge amount of work and resources that they have invested in PAACS. We appreciate their willingness to partner with us!"

NEWS SHORTS:



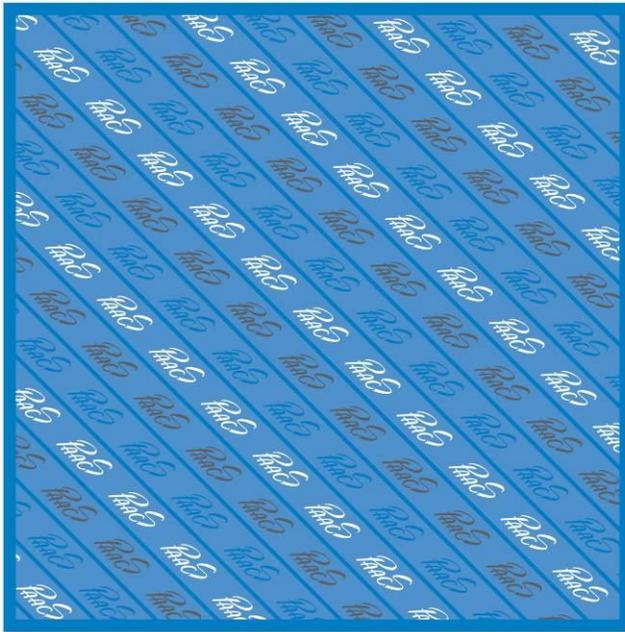
- **Harpur PAACS Conference Room:** Cardiologist Ron Johannsen gave the first lecture in the new PAACS conference room at Harpur Memorial Hospital in Menouf, Egypt. The surgical library currently has about 20 new textbooks that were purchased with gifts given to the program.
- **COSECSA to Examine Malamulo PAACS Program:** Professors Steve Ogendo (President of COSECSA) and Pankaj Jani (Secretary-General of COSECSA) will be traveling to Malawi July 6 – 9 to examine and accredit the programs at Malamulo SDA Hospital and the COSECSA program at Queen Elizabeth Hospital in Blantyre. The Medical Council of Malawi will be invited to visit the program in early July. The first residents are scheduled to start in August. PAACS new status in Malawi may account for the fact that there were no applicants from Malawi and one or two residents from other African countries will be offered a position in the first class.

- **Need for Short-term Faculty Coverage:** There are several programs which will need coverage for career PAACS faculty during their assignments back in North America. If you can help, please contact those listed in the e-mails below:
 - **Galmi** – Dr. Joe Starke will be home on assignment from **June, 2014 through May, 2015**. Please contact wmmplacement@samaritan.org and joe.starke@sim.org.
 - **Bongolo** – Drs. Jen and Zach O’Connors will be in the US from **mid-July through October, 2014**. Please contact wmmplacement@samaritan.org and Zach and Jen at zachandjenoconnor@gmail.com.
 - **Arusha, Tanzania** – Wendy Willmore, an international worker with Commission to Every Nation (Canada) will be returning for home assignment in late 2014. The exact dates are not yet confirmed, but are likely to be **October 13, 2014 - January 12, 2015**. Please contact her at gracethewendylady@hotmail.com.
 - **Mbingo, Cameroon** – There is an ongoing need for short-term help, especially during Steve Sparks’ home assignment from **June 19 - Jan 6 2015**. Please contact wmmplacement@samaritan.org and Jim Brown at jimbrownjab@aol.com.
 - **Harpur Memorial, Egypt** – Because of the need for the Hannas to return for 3 months this summer to provide leadership of MedSend Canada, Dave Thompson needs help during the months of **August, September and October, 2014**. In June 2015, Dave Thompson will return to the U.S. for a six month furlough. Sherif Hanna will be the sole PAACS surgeon at Harpur during that time. If you can help, please contact wmmplacement@samaritan.org and Dave Thompson at justthebeginning@hushmail.com.
 - **Soddo Hospital** – There is an **ongoing critical need** for short-term faculty at Soddo Christian Hospital in Ethiopia. Please contact wmmplacement@samaritan.org or Jeremy Gabrysch jeremy@soddo.org.
 - **Tenwek Hospital** – Russ White will be in the US **July 17, 2014 until January 2015** on home assignment. Please contact wmmplacement@samaritan.org and Russ White at kenyawhites@gmail.com.
- **PAACS November Commission Meeting Dates Changed:** The Fall PAACS Commission meeting will be held November 21 and 22, instead of October 31- November 1, as previously scheduled. It will be held at the Hilton Garden Inn in Des Plaines, IL, near O’Hare airport. Please put this on your calendar.

ANNOUNCEMENTS:

- **PAACS Logowear:** Show that you are “PAACS Proud” by what you wear! A beautiful silk scarf and a custom-woven silk tie, both emblazoned with the PAACS acronym, are now available for those who want an excuse to tell others what God is doing through PAACS. The silk scarf for women is 36” square. The silk woven tie is red, navy blue and has gold accent stripes – a real power tie to reflect God’s power in our ministry. The price for the tie

is \$25, including shipping, handling and taxes. The scarf is \$35, including shipping and handling. Please send your check made out to CMDA-PAACS to Terry McLamb, PAACS, PO Box 9906, Fayetteville, NC 28311-9906 and tell us how many of each you wish.



- PAACS Grocery Tote:** Go Green! Go PAACS! Exercise your spiritual gift of shopping with this reusable grocery tote emblazoned with the PAACS logo. This 80g non-woven polypropylene grocery tote has Herculean strength for those weekly grocery shopping trips. Feel free to load up this large tote: hefty 20" double reinforced handles, an extra-large 10" gusset, and a PE board bottom stand up to large loads (Testimonial: Dave Thompson states that he has carried at least 50 lbs. of groceries in his bag!) Makes a wonderful reusable alternative to in-store packaging and fits more too! Size: 14-1/2" x 13" x 10".



- Free Book on Reconstructive Surgery:** Dr. Louis Carter and his team of experienced plastic and reconstructive surgeries have put together a superb textbook for reconstructive and plastic surgery which focuses on the diseases and techniques available in resource-poor areas of the world. Dr. Carter gathered experts with both academic and practical experience in Africa to add to his experience and compiled a treasure of wisdom and surgical experience in the resource-poor areas. This 628-page textbook is the result of their

work. The book, valued at \$295, can be downloaded in PDF format at no cost from www.paacs.net. Look on the “PAACS Resources” area of the website.

PRAYER REQUESTS

- Pray with us as PAACS steps out in faith to respond to what we believe is God’s leading to continue growing. Pray that God will bless the present fund-raising campaign.
- Pray that God will lead the PAACS Search Committee to the men or women who will lead PAACS as Executive Director or Chief Development Officer during the next stage of development.
- Pray for the residents taking their annual exams on June 7 – that they will remember what they have studied, think clearly, and that their performance will accurately reflect what they have learned.
- Pray for the new residents who were selected for the programs in Gabon, Cameroon and Niger. Pray for new residents as they move to their training sites, their family’s adjustment, and the inevitable cross-cultural and educational issues.
- Pray that God will call additional career surgeons to join the PAACS faculties at Kijabe Hospital in Kenya, Soddo Christian Hospital in Ethiopia, Harpur Memorial Hospital in Egypt, and Mbingo Baptist Hospital in Cameroon.
- Pray for the team at Malamulo Hospital in Malawi as they prepare for the COSECSA inspection in early July, the inspection of their program by the Malawi Medical Council later in July and the opening of their program in August, 2014. Pray for the resident selection process.
- Pray that Mbingo Baptist, SIM-Galmi, Bongolo and Malamulo Hospitals will all receive government recognition for their PAACS training programs within the coming year.
- Pray for each of our graduates – that they will find effective and fulfilling ministries and glorify God in the midst of hardships and limited resources.

Editors:

Bruce Steffes, MD, MBA, MA (Bib. Min), FACS, FWACS, FCS(ECSA), FICS
David Thompson, MD, FACS, FWACS