

## CURRICULUM VITAE

### **Personal Information**

- **Anthony G. Charles, M.D, MPH, FACS.**
- Home Address: 1007 Camden Lane, Chapel Hill
- Home Phone: (310) 600-7411
- Email: anthony\_charles@med.unc.edu
- Date of Birth: 04/11/1969
  
- Marital Status: Married

### **EDUCATION**

- **Medical Education** MD 1992 University of Lagos, College of Medicine  
FRCSI 1998 Royal College of Surgeons Ireland.  
MPH 2008 The University of North Carolina at Chapel Hill.

### **ACADEMIC APPOINTMENT:**

- Associate Professor of Surgery, Division of Trauma, Critical Care & Burns, University of North Carolina, School of Medicine Assistant Professor of Surgery, Division of Trauma, Critical Care & Burns, University of North Carolina, School of Medicine
- Clinical Course Director, Physiology and Cell biology, University of North Carolina, School of Medicine
- Surgery Clerkship Director, University of North Carolina, School of Medicine
- Research Fellow, Cecil G. Sheps center for Health Services Research
- Research Fellow, American College of Surgeons Health Policy Research Institute

### **HOSPITAL APPOINTMENT:**

Medical Director, Adult ECMO program. UNC Hospitals  
Associate Director, Surgical Intensive Care Unit. UNC Hospitals

### **TRAINING: Residencies and Fellowships:**

*Fellowship, Surgical Critical Care and Trauma* 7/2005- 6/2006  
University of Michigan, Ann Arbor, MI

*Senior/Chief Resident in General Surgery* 1/2004-6/2005  
St. Joseph Mercy Hospital, Ann Arbor, MI

*Resident in General Surgery, PGY 1-3* 6/2000-12/2003  
Charles R. Drew University

Los Angeles County, Martin Luther King, Jr. Medical Center, Los Angeles, CA

*General Surgery Residency* 7/1995-8/1998  
North Middlesex Hospital, London, England

Medical Officer 1/1994- 6/1995  
Nigerian Army Medical Corp, General Hospital, Lagos, Nigeria

*Rotating Internship* 1/1993-1/1994  
Lagos University Teaching Hospital, Lagos, Nigeria

**Post-doctoral Research Position:**

Striesand Research Fellow – Breast Cancer 1999-/2000  
John Wayne Cancer Institute, Santa Monica, CA

**LICENSURE AND CERTIFICATION**

October	2008	Fellow, American College of Surgeons
July	2006	Licensed Physician, Medicine and Surgery, North Carolina
February	2006	Diplomate, American Board of Surgery
September	2006	American Board of Surgery, Added qualification in Surgical Critical Care
January	2004	Licensed Physician, Medicine and Surgery, Michigan #4301083030
October	2002	Licensed Physician, Medicine and Surgery, California #A80657
	1998	Royal College of Surgeons, Ireland, Fellow, FRCSI
	1998	ACLS Provider Certification
	1998	ATLS Provider Certification
	2009	ATLS Instructor Certification

**PROFESSIONAL ORGANIZATIONS**

Society of Critical Care Medicine  
American College of Surgeons  
Association of Academic Surgery  
Frederick Coller Surgical Society  
Womack Surgical Society  
Society of Black Academic Surgeons

**HONORS AND SPECIAL AWARDS**

<b>Commencement Speaker , UNC School of Medicine graduation, Class of 2011</b>	<b>2011</b>
Leonard Tow, Humanism in Medicine Award Presented by The Arnold P Gold foundation	2009
UNC Junior Faculty Development Award (\$7500)	2008
Faculty of the year Award Presented by the Student NMA, UNC School of Medicine	2007
Clarence Crook Award for Surgical Research.	2005
Best Teaching Resident of the Year Presented by University of Michigan Medical School	2005
Frederick A. Collier Travelling Clinical Fellow Presented by the Collier Surgical Society	2005
Best Teaching Resident of the Year Presented by the 2003 Graduating Class of Drew/UCLA Medical School	2003
Best Surgical 3 <sup>rd</sup> Year Resident California Hospital Medical Center	2003
Best Surgical 2 <sup>nd</sup> Year Resident California Hospital Medical Center	2002
Best Surgical Intern of the Year California Hospital Medical Center	2001
<b>GRANTS</b>	
NIH T-32 Trauma Training Grant – Co- Program Director	2006- present
K-07 Institute of Aging Grant(\$20,000)- Disparities in older burn patients	2009
NTRACS (\$10,000) Validation of the vertbal autopsy tool for trauma surveillanace	2009
Johnson and Johnson global Burn Grant ( \$80,000)	2011

## **BIBLIOGRAPHY**

## **Journal Articles – Peer Reviewed**

1. Khoury A, Mendoza A, **Charles A**. Cultural competence: why surgeons should care. *Bull Am Coll Surg*. 2012 Mar;97(3):13-8. No abstract available.
2. Samuel JC, Sankhulani E, Qureshi JS, Baloyi P, Thupi C, Lee CN, Miller WC, Cairns BA, **Charles AG** Under-reporting of road traffic mortality in developing countries: application of a capture-recapture statistical model to refine mortality estimates. *PLoS One*. 2012;7(2):e31091. Epub 2012 Feb 15.
3. Samuel JC, Msiska N, Muyco AP, Cairns BA, **Charles AG**. An observational study addressing the anatomic basis of mesosigmoidopexy as a rational treatment of non-gangrenous sigmoid volvulus. *Trop Doct*. 2012 Jan;42(1):44-5. Epub 2011 Dec 19.
4. Joseph M, **Charles AG**. Early extracorporeal life support as rescue for Wegener granulomatosis with diffuse alveolar hemorrhage and acute respiratory distress syndrome: a case report and literature review. *Pediatr Emerg Care*. 2011 Dec;27(12):1163-6.
5. Samuel JC, Qureshi JS, Mulima G, Shores CG, Cairns BA, **Charles AG**. An Observational Study of the Etiology, Clinical Presentation and Outcomes Associated with Peritonitis in Lilongwe, Malawi. *World J Emerg Surg*. 2011 Nov 8;6(1):37.
6. Samuel JC, Campbell EL, Mjuweni S, Muyco AP, Cairns BA, **Charles AG**. The epidemiology, management, outcomes and areas for improvement of burn care in central Malawi: an observational study. *J Int Med Res*. 2011;39(3):873-9.
7. **Charles AG**, Walker EG, Poley ST, Sheldon GF, Ricketts TC, Meyer AA. Increasing the number of trainees in general surgery residencies: is there capacity? *Acad Med*. 2011 May;86(5):599-604.
8. Schechter WP, **Charles AG**, Cornwell EE 3rd, Edelman P, Scarborough JE. The surgery of poverty. *Curr Probl Surg*. 2011 Apr;48(4):228-80
9. Akinkuotu A, Samuel JC, Msiska N, Mvula C, **Charles AG**. The role of the anatomy of the sigmoid colon in developing sigmoid volvulus: a case-control study. *Clin Anat*. 2011 Jul;24(5):634-7. doi: 10.1002/ca.21131. Epub 2011 Feb 14.
10. Qureshi JS, Samuel J, Lee C, Cairns B, Shores C, **Charles AG**. Surgery and Global Public Health: The UNC-Malawi Surgical Initiative as a Model for Sustainable Collaboration. *World J Surg*. 2010 Nov 4
11. Stafford RE, Dreesen EB, **Charles A**, Marshall H, Rudisill M, Estes E. Free and local continuing medical education does not guarantee surgeon participation in maintenance of certification learning activities. *Am Surg*. 2010 Jul;76(7):692-6.
12. Samuel J, Akinkuotu A, Villaveces A, **Charles A** et al .Hospital-based Injury Data in Malawi: Strategies for Data Collection and Feasibility of Trauma Scoring Tools. *Trop Doct*. 2010 Apr;40(2):98-9.
13. Nelson J, Cairns B, **Charles A**. Early extracorporeal life support as rescue therapy for

severe acute respiratory distress syndrome after inhalation injury. *J Burn Care Res.* 2009 Nov-Dec;30(6):1035-8.

14. Samuel JC, Akinkuotu A, Villaveces A, **Charles AG**, et al. Epidemiology of Injuries at a Tertiary Care Center in Malawi. *World J Surg.* 2009 Jul 14
15. King J, Fraher EP, Ricketts TC, **Charles A**, Sheldon GF, Meyer AA. Characteristics of practice among rural and urban general surgeons in North Carolina. *Ann Surg.* 2009 Jun;249(6):1052-60
16. **Charles A** et al. Albumin use guidelines and outcome in a surgical intensive care unit. *Arch Surg.* 2008 Oct;143(10):935-9; discussion 939.
17. Stone TJ, Riesenman PJ, **Charles AG**. Red blood cell transfusion within the first 24 hours of admission is associated with increased mortality in the pediatric trauma population: a retrospective cohort study. *J Trauma Manag Outcomes.* 2008 Oct 20;2(1):9
18. Sheldon GF, Ricketts T, **Charles A** et al. The Global Health Workforce Shortage: Role of Surgeons and Other Providers. *Adv Surg.* 2008;42:63-85.
19. Hayanga, AJ., Kohem R, **Charles A** et al. Central diabetes insipidus: a rare perioperative cause of severe hypernatraemia. *Anaesth Intensive Care.* 2008 Mar;36(2):235-41.
20. Speck KE, **Charles A**. Distal Intestinal Obstructive Syndrome: A Surgical Perspective. *Arch Surg.* 2008 Jun;143(6):601-3.
21. Berkowitz S, Marshall H and **Charles A**. Intraabdominal Surgical Foreign bodies: Time to intergrate nascent technologies. *Am Surg.* 2007 Nov;73(11):1083-5.
22. **Charles A** , Walters M, Huehl S and Pomerantz R. Blood Transfusion is an independent predictor of Mortality in Blunt Trauma. *Am Surgeon* 2007 Jan. 73(1): 1-5
23. **Charles A**, Napolitano LM. Recombinant Human Erythropoietin in a Surgical Critical Care Jehovah's Witness Patient: Issues Regarding Dosing and Duration. *Anaesth Intensive Care.* 2006 Dec;34(6):793-6.
24. **Charles A**, Shaikh AA, Domingo SR, Kreske E. Falciform Ligament Hernia following Laparoscopic Cholecystectomy. *Am Surgeon* 2005 Apr. 71(4):359-361.
25. **Charles A**, Domingo SR, Goldfaden AM, Fader JP, Lampmann RM, Mazzeo RJ. Small Bowel Ischemia Following Roux-En-Y Gastric Bypass Complicated By Pregnancy: A

Case Report. Am Surg. 2005 Mar;71(3):231-4.

26. Shaikh AA, **Charles A**, Domingo S and Schaub G . Gallbladder Volvulus: Report of 2 Original Cases and Review of the Literature. Am Surg. 2005 Jan;71(1):87-9.
27. Wang H, **Charles AG**, Frankel AJ, Cabot MC. Increasing Intracellular ceramide: an approach that enhances the cytotoxic response in prostate cancer cells. Urology. 2003 May: 61 (5) 1047-52.
28. **Charles A**, Asensio J, Forno W, Petrone P, Roldan G, Scott RP. Penetrating Bean bag Injury: Intrathoracic Complication of a Non-lethal Weapon. J Trauma. 2003 Nov: 53 (5): 997-1000. Nov. 2002.
29. **Charles A**, Han TY, Liu YY, Hansen N, Giuliano AE, Cabot MC. Taxol-induced ceramide generation and apoptosis in human breast cancer cells. Cancer Chemother Pharmacol. 2001 May: 47 (5): 444-50.
30. **Charles A**. Haematuria and clot retention after transurethral resection of the prostate: a pilot study. BJU Int. 1999 Apr: 83 (6): 737-8.

#### **Abstracts – Published**

1. Jones SW, **Charles AG** and Cairns BA. Preexisting Comorbid Diseases and Mortality in Burn Patients Crit Care Med 2008 December;36(12 Suppl):Abstract 335
2. **Charles AG**, Purtill MA, Dickinson S, Kraft M, Meldrum C, Napolitano LM. The effect of Albumin Use Guidelines in a Surgical ICU. Crit Care Med 2005 December;33(12 Suppl):Abstract 236-S:A65
3. Purtill MA, **Charles AG**, Zalewski C, Meldrum C, Napolitano LM. Ventilator-associated pneumonia in the SICU: Over-diagnosis using clinical criteria. Crit Care Med 2005 December;33(12 Suppl):Abstract 178-T:A155.
4. **Charles AG**, Han TY, Liu YY, Hansen N, Giuliano AE, Cabot MC. Taxol induced ceramide generation in human breast cancer cells. FASEB J. 14:A1512. Abstract 1147.
5. Wang H, **Charles AG**, Frankel AJ, Cabot MC. Increasing intracellular ceramide: An approach that enhances the cytotoxic response in prostate cancer cells. Proc Am Soc Clin Oncol 22: page 422, 2003 (Abstract 1696).
6. **Charles AG**, Orozco P, Perry D, Williams I, Hurst R. The Predictability of Core Biopsy as a correlative to Mammographic BI-RADS Categories IV & V in the Minority Breast Cancer Population. Proc Am Soc Clin Oncol 22: page 44, 2003 (Abstract 175)

## Presentations

1. **Charles A**, Cairns BA. Is the Old Adage of Age + % Total Body Surface Area Still Applicable in Predicting Mortality in Burn Patients. 22<sup>nd</sup> Annual Southern region Burn Conference. Louisiana. November 2009
2. **Charles A**, Cairns BA. Early extracorporeal life support as rescue therapy for severe acute respiratory distress syndrome after inhalation injury. .22<sup>nd</sup> Annual Southern region Burn Conference. Louisiana. November 2009
3. **Charles A**, Cairns BA. The Modern Role of Academic Burn Centers in Developing Mechanisms for International Outreach in the Care of Burn Injury. . 22<sup>nd</sup> Annual Southern region Burn Conference. Louisiana. November 2009
4. **Charles A**, Cairns BA. The Role of Preexisting comorbidities in the mortality outcome of Burn Patients: A single Center retrospective study. 22<sup>nd</sup> Annual Southern region Burn Conference. Louisiana. November 2009
5. Charles A, Fraher E. Cutting Time? How hours spent in Clinical Care for for Surgeons in Different birth Cohorts. Presented at the 55<sup>th</sup> Collier Surgical Society meeting. Tampa 2009
6. Charles A. Mentoring Under-represented Minority faculty and residents: Can we bridge the Gap. Panel Session. ACS
7. **Charles A**, Jones SW, and Cairns B. Preexisting Comorbid Diseases and Mortality in Burn Patients. Presented at The Society of Critical Care Medicine meeting, Nashville, Tennessee. February 2009
8. **Charles A**, Ricketts T, Sheldon GF and Meyer AA. Surgical Workforce Distribution in North Carolina: Is it Race or Poverty? Presented at the American Association of Medical Colleges, Workforce conference, Crystal City, Virginia. May 2008.
9. J King, E Fraher, Ricketts T, **Charles A**, Sheldon GF and Meyer AA. Diversity of Practice Patterns among Rural and Urban General Surgeons in North Carolina. Presented at the American Association of Medical Colleges, Workforce conference, Crystal City, Virginia. May 2008.
10. **Charles A**, Stafford R. Charlson Comorbidity Index is a predictor of Intensive care unit length of stay and mortality in the elderly trauma patient. Presented at The Society of Black Academic Surgeons, Cleveland ,Ohio. April 2008.
11. **Charles A**, Stafford R. Charlson Comorbidity Index is a predictor of Intensive care unit length of stay and mortality in the elderly trauma patient. Presented at The Society of Critical Care Medicine meeting, Honolulu, Hawaii. February 2008.

12. Stone T, Reisenmann P, **Charles A**. Red blood cell transfusion within the first 24 hours of admission is associated with increased mortality in the pediatric trauma population. Presented at the South Eastern Surgical Congress , Brimingham, Alabama. February 2008
13. **Charles A**, Stafford R. Recreational drug use in the elderly trauma population. Presented at the 2007 North Carolina Conference on Aging. Winston Salem, September 10-13,2007
14. Dehmer J,**Charles A** Substance use is an independent predictor of mortality in elderly trauma patients. Presented at the 51<sup>st</sup> Annual Meeting, North Carolina Chapter of The American College of Surgeons, Asheville, July 6-8, 2007
15. **Charles A**, Purtill MA, Napolitano LM. The Effect of Albumin Use Guideleines in a Surgical Intensive Care Unit. Presented at the 53<sup>rd</sup> Annual Meeting, Michigan Chapter of The American College of Surgeons, Traverse City Michigan, May 18-19, 2006.
16. Purtill MA, **Charles A**, Zalewski C, Meldrum C, Napolitano LM. Ventilator-associated pneumonia in the SICU: Over-diagnosis using clinical criteria. Presented at the Society of Critical Care Medicine 35<sup>th</sup> Annual Critical Care Congress, San Francisco, January 7-11, 2006.
17. **Charles A**, Purtill MA, Dickinson S, Kraft M, Meldrum C, Napolitano LM. The effect of Albumin Use Guidelines in a Surgical ICU. Presented at the Society of Critical Care Medicine 35<sup>th</sup> Annual Critical Care Congress, San Francisco. January 7-11, 2006.
18. **Charles A** , Walters M, Huehl S and Pomerantz R. Blood Transfusion is an Independent Predictor of Mortality in Blunt Trauma. Presented at 51th Clinical Meeting of the Frederick A. Collier Society. Santa Barbara, California. October 20-23, 2005.
19. Domingo S, Shaikh AA, **Charles A**, Whitehouse WM. Traumatic Bilateral Internal Carotid Artery Dissection after Water Skiing Accident. Case report. Presented at 51th Clinical Meeting of the Frederick A. Collier Society. Santa Barbara, California. October 20<sup>th</sup>-23, 2005.
20. **Charles A**, Domingo SR, Goldfaden AM, Fader JP, Lampmann RM, Mazzeo RJ. Small Bowel Ischemia Following Roux-En-Y Gastric Bypass Complicated By Pregnancy: A Case Report. Presented at 50th Clinical Meeting of the Frederick A. Collier Society. Nashville, Tennessee. September 30 – October 3, 2004.
21. **Charles A** , Hurst R. The implications of positive core biopsy in BI-RADS IV and V Screen Detected Lesions in a Minority Population. Presented at the Michigan Chapter of the American College of Surgeons. May 20-22,2004.



22. **Charles A, Hurst R.** The Predictability of Core Biopsy as a correlative to Mammographic BI-RADS Categories IV & V in the Minority Breast Cancer Population. Presented at the American Society of Clinical Oncology Meeting, Chicago, June 2003.
23. **Charles A, Han TY, Liu YY, Hansen N, Giuliano AE, Cabot MC.** Taxol induced ceramide generation in human breast cancer cells. Presented at the ASBMO. Am Soc. Expt. Therapeutics. Boston, USA. June 4-8, 2000.
24. **Charles A, Fowles GA.** An Unusual Primary Bladder adenocarcinoma – The Muir-Toore Syndrome. Presented at the Urology Section, Royal Society of Medicine, England February 1998.

### **Teaching Record**

#### **Grand Rounds. Outside UNC.**

1. Charles A .Adult Extracorporeal membrane Oxygenation: Hail Cesar. Grand Round presentation to the North Carolina Respiratory Care Association. September 2009
2. Charles A. Surgery and Global Public Health: The Malawi Surgical Initiative. Grand Round presentation to Injury Prevention and Research Center. September 2009
3. Charles A. Blood Management Strategies in Trauma and Critical Care. Grand Round presentation to the Department of Surgery, Harbor-UCLA Medical Center, Los Angeles California. October 2005.
4. Charles A. Abdominal Gunshot Wounds: The Los Angeles Experience. Grand Round Presentation to the Department of Surgery, St Joseph Mercy Hospital, Ann Arbor, Michigan. July 2004.

#### **Grand Rounds . UNC**

1. Surgery and Global Public Health: Can we bridge the gap. Presented to the Department of Surgery.
2. Anemia and Blood Transfusion in Critical Care: TRICC or TREAT. Presented Surgical Critical Care Ground rounds .
3. Morbid Obesity in the critically ill. Presented Surgical Critical Care Ground rounds .
4. Trauma Surveillance in Malawi. Presented Preventive Medicine Grand rounds, March 2008.
5. Rationing of Care in the Intensive Care Unit. Presented Surgical Critical Care Ground rounds .