Biography of Mayur B. Patel, MD, MPH, FACS

Dr. Patel is a Surgeon in the Section of Surgical Sciences, Department of Surgery, Division of Trauma, Emergency General Surgery, & Surgical Critical Care at Vanderbilt University Medical Center (VUMC); Researcher in the Critical Illness, Brain Dysfunction, and Survivorship Center at VUMC; and Staff Surgeon & Intensivist in the Surgical Service, Veterans Affairs Medical Center, Tennessee Valley Healthcare System in Nashville, Tennessee.
Preamble

I am forever indebted to my family, my Trauma Division and Surgery leadership at Vanderbilt University Medical Center, the Association for Academic Surgery (AAS), the American College of Surgeons (ACS) and its International Liaison Section consummately coordinated by Kate Early, the Royal Australasian College of Surgeons (RACS) and its Annual Scientific Congress (ASC), Australian and New Zealand College of Anaesthetists (ANZCA), Westmead Hospital, Macquarie University, The Alfred Hospital, The Royal Melbourne Hospital, Auckland City Hospital, Australian Clinical Trials Alliance (ACTA), Department of Industry, Innovation and Science, and the National Health and Medical Research Council (NHMRC). All of these entities facilitated my wonderful experiences serving for the 2018 ACS Travelling Fellowship to Australia and New Zealand (ANZ).

Preparation

The journey began at the 2017 ACS Clinical Congress in San Diego, California, where I met with Professor Julian A. Smith, MBBS, MS, MSurgEd, FRACS, FACS, FFSTRCSEd, FCSANZ, FAICD, Head of the Departments of Cardiothoracic Surgery and Surgery at Monash University, who serves as the ACS President of the ANZ Chapter. He graciously connected me throughout Australia’s Trauma Centers in Sydney and Melbourne, as well as with Auckland City Hospital’s Professor Ian Civil, BSc, MBChB, FRACS, FACS, who is Co-Director of Trauma Services, Vascular Surgeon, as well as Past-President of the RACS. The RACS also engaged me with the 2018 Trauma Convener, Director of Trauma at Westmead Hospital and breast oncoplastics expert, Dr. Jeremy Hsu, as well as the 2018 Developing a Career and skills in Academic Surgery (DCAS) Course Convener and Clinical Senior Lecturer at the University of Sydney, Professor Richard M. Hanney. All four surgeons were central to my academic activities, networking, and travel planning.
Surgeon-Scientists in Sydney

Annelise M. Cocco, BA, MBBS, a graduating Surgical Resident interested in Trauma, was the first to greet Professor Timothy Pritts, MD, PhD, Chief, Section of Surgery at University of Cincinnati, and myself at Darling Harbour. We were brought to the Westmead Hospital International Professorial Symposium excellently organized by Dr. Hanney; chaired by Surgical Head of the Australian National Transplant Unit Professor Henry Pleass; and opened by Western Sydney Local Health District’s Chief Executive Mr. Danny O’Connor. Speakers included Professors Arthur J. Richardson, Head of Upper Gastrointestinal Surgery and Hepato-Biliary Surgery at Westmead; Marc Gladman, MBBS, PhD, DRCOG, DFFP, MRCS, MRCOG, FRCS, FRACS, DCAS Co-Chair, University of Adelaide; as well as Senior US Surgeon Health Services Researchers; Amir A. Ghaferi, MD, MS, FACS, DCAS Co-Chair, Surgeon-in-Chief of the University Hospital Operating Rooms, University of Michigan; Caprice C. Greenberg, MD, MPH, FACS, DCAS speaker, Vice Chair of Research, Professor, University of Wisconsin; and Lillian S. Kao, MD, FACS, DCAS speaker, Division of Trauma Chief, University of Texas in Houston. Drs. Pritts, Hsu, and I led a Trauma Hands-On session, where I enjoyed discussing mentorship in trauma, as well as facilitating interactive, competitive, and fun ballistics and penetrating trauma case discussions, which are very uncommon mechanisms of injury to encounter within Australia due to steady legislative efforts since 1996. Despite the infrequency of these scenarios, we were impressed with the knowledge base, cognitive skills, and creativity of the Westmead trainees and faculty in caring for the injured patient afflicted by penetrating trauma.

With Westmead Anesthesiology and Surgery Faculty, our host Professor Hanney coordinated a rooftop dinner at the Cafe Sydney and topped this off with a day-trip to the Hunter Valley Wine Country, a bucket list item for international travelers. Along with the Westmead DCAS contingent, we were joined by Professor Richardson’s partner Tanya Mikulic, Lawyer at Gilbert+Tobin; young Australian academic surgeons; US DCAS and AAS members; including
Andrea Hayes-Jordan, MD, FACS, FAAP, Chief of Pediatric Surgery, Surgeon-in-Chief North Carolina Children's Hospital, University of North Carolina; George Yang, MD, PhD, Vice Chair of Veterans’ Affairs, University of Alabama; Jacob A. Greenberg, MD, EdM, FACS, Director of the Comprehensive Hernia Center, University of Wisconsin; Kevin Staveley-O’Carroll, MD, Surgery Chair, University of Missouri; Lawrence (Drew) Shirley, MD, Surgical Oncology Fellowship Director, The Ohio State; Rachel R. Kelz, MD, MSCE, Surgical Education Expert, Professor, University of Pennsylvania; Rebekah R. (Becke) White, MD, FACS, Pancreas Expert, Surgical Oncologist, University of California, San Diego; and many families and other friends. At the Thomas Allen Winery on an absolutely gorgeous day, we all tasted wine, learned about Australian viticulture, tried on Darin Jordan's National Football League Super Bowl championship (XXIX) ring from the San Francisco 49ers, finished with a hearty meal at Blaxton Inn, and concluded with a fortuitous wallaby sighting.

First Advanced Surgical Skills for Exposure in Trauma (ASSET) Course in Australasia

It was special to serve for the inaugural ACS ASSET course in Australia and New Zealand held at the outstanding facilities of Macquerie University. Given the day-long ASSET course was developed by the ACS Committee on Trauma and its Education Committee under Mark W. Bowyer, MD, Professor, Surgical Director of Simulation, Chief of the Division of Trauma and Combat Surgery of the Uniformed Services University of the Health Sciences, we were honored to have him lead this course directed by Dr. Hsu; aided by New Zealand Surgeon Ashish Taneja, Head of the Acute Surgical Unit at Auckland City Hospital; Dr. Pritts; and myself. The ASSET course participants were not mere students, these were the best surgical residents and faculty from both countries, and included, the esteemed Ian Civil; John Barker, Army Reservist, Rural Surgeon; Kate Martin, President of the Australasian Trauma Society, Trauma Surgeon at The Alfred Hospital; Martin Wullschleger, Director of Trauma Services at Gold Coast University Hospital; Matthew Claydon, Vascular Surgeon at the Alfred and Cabrini Hospitals; Michael Muller, Founding Director of Trauma at the Royal Brisbane and Women’s Hospital; Ron
Jithoo, Royal Australian Air Force Officer, Consultant Neurosurgeon at The Alfred Hospital; Stephen Adams, Pediatric Surgeon at Waikato Hospital; Thomas Oh, Consultant Trauma Surgeon at Royal North Shore Hospital; and many others. As an example of the world being small, Dr. Muller reminisced about his wife, Karen, and her time as a Vanderbilt Nurse Practitioner, as well as about our Vanderbilt Trauma Medical Director Oscar Guillamondegui’s trials and tribulations as a Galveston medical student. Overall, all who participated felt this interactive ACS Trauma course always facilitated bi-directional learning, and we are hopeful these experiences drive future course deployments throughout Australasia.

RACS ACS: Reflecting on What Really Matters

Taking advantage of the integrated Social Program built into the RACS ASC, I joined the BridgeClimb Sydney and was grateful to meet Professor, Associate Dean of Clinical Partnerships at Macquarie University, Trauma Surgeon, and internationally recognized Trauma Educator Stephen Deane, who brought the ACS COT Advanced Trauma Life Support (ATLS) course to Australia, created the Definitive Surgical Trauma Care course, and received the Member of the Order of Australia for his lasting contributions. His memory rivaled his accomplishments, and provided a second example of the world being small; he remembered meeting Professor John A. Morris, MD, Jr, Vanderbilt’s First Division Chief of Trauma, when Dr. Morris was a Fellow at the University of San Francisco. Anne Deane, his wife of almost 47 years was equally impressive with her expansive knowledge of Sydney history, which matched that of our BridgeClimb tour guide. She joined Dr. Guillamondegui and myself for a breakfast with koalas at the Wild Life Sydney Zoo, and she served as excellent company during many RASC ASC dinners.

The RACS ASC was a fabulous interdisciplinary and educational event with ANZCA. One of the meeting highlights was the unveiling of a joint emergency laparotomy bi-national pilot study, in efforts to improve quality and reduce cost in acute care surgery. I enjoyed discussing "Insights into Intensive Care Unit (ICU) Survivorship" in the ACS Keynote Lecture chaired by
Professor Smith and affably acknowledged by the 47th RACS President and Orthopedic Surgeon John Batten. I participated in a session on post-acute trauma issues and delivered "Spinal Clearance and Mobility - Do we really need Collars, Spine Boards and Bed Rest?", which was moderated by Professor Civil. Moderated by Trauma Surgeon and international ATLS expert Scott D'Amours, MDCM, FRCS, FRACS, we had a fun interactive session on "Standardization to Improve Outcomes - Bundles of Care in Trauma & Critical Care". Given our Vanderbilt’s Critical Illness, Brain Dysfunction, and Survivorship (CIBS) Center’s ongoing randomized clinical trials in critical care (NCT01211522, NCT01739933), it was exhilarating to see the results from the ANZCA Clinical Trials Network and the Australian and New Zealand Intensive Care Society (ANZICS) Clinical Trials Group investigation, the REstrictive Versus L1bEral Fluid Therapy in Major Abdominal Surgery: RELIEF Study (NCT01424150). Published in the New England Journal of Medicine (NEJM) during the RACS ACS, the work showed no difference in the rate of one-year disability-free survival after randomization to a restrictive or liberal fluid strategy for 24 hours after major abdominal surgery.

Westmead Trauma

After the RACS-ACS, I enjoyed a home cooked meal with Dr. Hsu and his wife, and ACS President-Elect Ronald Maier and his wife Lauren. Finally, I spent additional time at Westmead Hospital with Director Hsu and joined their Trauma Rounds to learn more about their clinical approach. In many ways, the US, Australian, and New Zealand trauma care was similar, team-based, and shift-based, such that a mountain of clinical, imaging, laboratory, and operative information was passed at the daily check-out using heavy and creative abbreviations that our US residents would appreciate (e.g., TF, transfer; HSMVA, high speed motor vehicle accident; BIBA, brought in by ambulance). In other ways, our critical care training and care models are different, as in US ICUs, critical care is an extension of perioperative and trauma care, staffed by surgical intensivists, as well as anesthesiology intensivists. However, in ANZ, their ICU care
is led by talented medical intensivists, who often remarkably extend themselves even to emergency room environments and trauma resuscitations. My final foray at Westmead focused on Oral Examination preparation for graduating surgery residents, which felt more intensive than the American Board of Surgery Certifying Exam, in that trainees are expected to explain surgical pathophysiology, as well as demonstrate the history and physical of actual patients waiting for surgery, over a multi-day testing period marked by higher failure rates. These were outstanding young surgeons and I am proud to report Dr. Cocco did pass and is embarking on a career in trauma.

**Trauma, Critical Care, and Clinical Trials in Melbourne**

Upon my arrival to Melbourne, my new colleague from the inaugural ANZ ASSET course, Dr. Jithoo, and his anaesthetist friend, took me to dinner and showed me the beautiful South Wharf. Then, I visited The Alfred and Royal Melbourne Hospitals (RMH), and their respective trauma centers led by Professors Mark Fitzgerald and Rodney Judson. At The Alfred, I enjoyed rounding with Dr. Fitzgerald, engaging trainees in penetrating trauma case discussions coordinated by ASSET colleague Dr. Martin, and witnessing their collaborative webcast, the Victorian Trauma Grand Rounds. Subsequently, I connected with the acclaimed clinical trialist and researcher Professor Jamie Cooper, AO, BMBS, MD, FRACP, FCICM, FAHMS, participated in their journal club on extracorporeal membrane oxygenation, and rounded in their ICUs. At RMH, after rounding efficiently with Dr. Rezvaneh (Rose) Shakerian's Trauma Service, I witnessed the 2018 National Tribute & Awards Ceremony for Clinical Trials of the Year, where Dr. Cooper’s TRANSFUSE study (NEJM 2017) was a finalist. It was incredible to see the multifaceted support for “public-good” clinical trials by patients, government (NHMRC, Department of Industry, Innovation and Science), clinical researchers (ACTA), and health care.

**Au Revoir from Auckland**
I closed my academic journey by visiting Auckland City Hospital and its Trauma Program under Drs. Civil and Taneja. I joined both trauma and emergency general surgery services, as well as their multidisciplinary trauma audit, partook in mid-morning tea, and enjoyed meeting Co-Director of Trauma Services, Clinical Director in General Surgery, Chair of the New Zealand Trauma Committee of the RACS, Professor Li Hsee, MB, BCh, BAO, RACS. Afterwards, my family and I continued onto Rangitoto and Waiheke Islands, before further adventures in Queenstown, and Christchurch. The ACS/ANZ Travelling Fellowship facilitated friendship, ties to the RACS, DCAS, AAS, and ANZICS organizations, and an unforgettable journey.
RACS Section Dinner of Orthopedic Surgery, Rural Surgery, and Trauma Surgery at the Australian National Maritime Museum: Left to Right; Front Row, Dr. Zsolt Balogh, Dr. Mark W. Bowyer, Dr. Jeremy Hsu, Dr. Ronald V. Maier, Lauren Maier, Anne Deane, Dr. Adil Haider, Dr. Timothy Pritts, Dr. Martin Wullschleger; Back Row, Dr. Michael D. Stover, Dr. Mayur B. Patel

Westmead Hospital International Professorial Symposium: Left to Right, Dr. Timothy Pritts, Dr. Mayur B. Patel, Dr. Lillian S. Kao, Dr. Caprice C. Greenberg, Dr. Amir A. Ghaferi, Dr. Marc Gladman, Dr. Henry Pleass, Mr. Danny O'Connor

RACS ASC and ANZCA ASM Gala Dinner: Left to Right, Drs. Oscar Guillamondegui, Jeremy Hsu, Adil Haider, Mayur B. Patel

Dinner at Dr. Jeremy Hsu’s House: Left to Right, Lauren Maier, Nicole Hsu, Dr. Mayur B. Patel, Dr. Ronald V. Maier, Dr. Jeremy Hsu

The Alfred Hospital: Dr. Mayur B. Patel (left) and Dr. Mark Fitzgerald.

The Auckland City Hospital: Dr. Mayur B. Patel (left) and Dr. Ian Civil.

Dr. Mayur B. Patel (right) and family.
Expenditures for the 2018 ACS Travelling Fellowship to Australia and New Zealand

<table>
<thead>
<tr>
<th>EXPENDITURE CATEGORY</th>
<th>AMOUNT</th>
</tr>
</thead>
<tbody>
<tr>
<td>Airfare</td>
<td>$2,240.49</td>
</tr>
<tr>
<td>Conference Registration</td>
<td>$394.38</td>
</tr>
<tr>
<td>Lodging</td>
<td>$6,347.27</td>
</tr>
<tr>
<td>Meals</td>
<td>$497.67</td>
</tr>
<tr>
<td>Ground Transportation</td>
<td>$520.19</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>$10,000.00</strong></td>
</tr>
</tbody>
</table>