

**SOCIEDAD PANAMERICANA DE TRAUMA
SOCIEDADE PANAMERICANA DE TRAUMA
PANAMERICAN TRAUMA SOCIETY**



THE FIRST THREE DECADES

By

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*“We sincerely hope that the members will read this history,
proudly own the Society as their own and inspire others to
advance it further”*

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ABSTRACT

The Panamerican Trauma Society was born 30 years ago with the mission of improving trauma care in the Americas by promoting an exchange of ideas and concepts and expanding knowledge of trauma and acute illness. The authors, immediate past leaders of the organization, review the evolution of this assembly of diverse cultures and nationalities.

PTS JOURNEY FROM INFANCY TO ADULTHOOD

It has now been thirty years since the Panamerican Trauma Society (PTS) was born. The three decades of its short existence have been quite eventful in growing pains, adolescence, maturation and accomplishments. It is an interesting tale of people of various languages, nationalities, backgrounds and race coming together to improve the care of the critically injured and ill surgical patient in the hemisphere. It is a journey of international collaboration in global surgery and improvements in surgical care of low and middle income countries (LMIC). The scope has extended now to distant continents.

The first author of this communication has had the privilege of participation in this great odyssey, first as a young surgeon and a charter member, climaxing to the last six years of executive directorship. The authors have just finished their official posts of executive director and immediate past-President of the Society, respectively. The objective of this report is to document the Society's journey from its infancy to the current status of adulthood. The intention is not in the least self-aggrandizement, but to weave the evolution of a multi-national society in the current era of increased enthusiasm for issues of global surgery. It is a tribute for the many, many individual members, Board of Managers, Committees and past Presidents who collectively should be credited with the current standing of the Society. We sincerely hope that the members will read this history, proudly own the Society as their own and inspire others to advance it further. This document may also serve as the baton for the in-coming generation and leadership.

The Birth:

PTS was conceived over a lunch, in a restaurant in Mexico City named "Hacienda Los Morales" in 1987 during a Mexican Red Cross symposium. It was an inspired thought of Dr. Armando Baqueiro of Mexico, who proposed to create a Society with the mission of improving the management of trauma patients in the American Hemisphere: North, Central and South; and consequently with the name Panamerican Trauma Society. The visionaries included Drs. Baqueiro, Aurelio Rodriguez, Alejandro Grife, Garcia Morales



Photo 1: The "lunch of inspiration" where the PTS was proposed. From left to right: Drs: Gomes-Palacios, Carlos Moreno, Armando Baqueiro, Aurelio Rodriguez, Alejandro Grife. Missing : Garcia Morales "el max"

"El Max," Gomez Palacio, Carlos Moreno, all Latin American surgeons of experience and repute (Photo 1). Drs. Aurelio Rodriguez and Francisco Holguin (from Colombia) traveled all through the Latin American world, presenting the proposition to create this Society. The idea met with unanimous approval. The Society was officially founded in Bogota, Colombia in 1989. The first officers and members met during the Annual Congress of the Federation of Latin American

Surgical Societies (FELAC) in Ecuador and at that time Dr. Aurelio Rodriguez from Peru and the USA was appointed as the first president and Ricardo Sonneborn from Chile as the first Vice-president.

Table 1 - ANNUAL MEETINGS

1987 First Board Meeting, Quito
 1988 First PTS congress, Puerto Rico
 1990 Sao Paulo, Brazil
 1991 Buenos Aires, Argentina
 1992 Guadalajara, Mexico
 1993 Costa Rica
 1994 Cartagena, Colombia
 1995 Salvador, Brazil
 1996 Cartagena, Colombia
 1997 Miami, USA
 1998 Buenos Aires, Argentina
 1999 Panama
 2000 Margarita, Venezuela
 2001 Monterrey, Mexico
 2002 Sao Paulo, Brazil
 2003 Lima, Peru
 2004 Miami, USA
 2005 Guayaquil, Ecuador
 2006 Banff, Canada
 Cartagena, Colombia
 2007 Puebla, Mexico
 2008 Campinas, Brazil
 2009 Caracas, Venezuela
 2010 Montevideo, Uruguay
 2011 Asuncion, Paraguay
 2012 Medellin, Colombia
 2013 Santiago, Chile
 2014 Panama City, Panama
 2015 Santra Cruz, Bolivia
 2016 Maceio, Brazil

The Infancy:

The first Annual Congress of the PTS was held in San Juan, Puerto Rico in 1988 with economic benevolence of its Governor. A further definition of the Board of Directors was accomplished. The second Congress was about to happen in 1989 in Puerto Rico. There was, however, an unwelcome intruder in the form of Hurricane Hugo. The Congress never materialized. Fortunately, both the Society and the stranded early visitors survived this adversity. The second scientific assembly of the Society was held the next year in São Paulo, Brazil. The Brazilian group, led by the distinguished Professor Dario Birolini and his group from Das Clinicas joined the PTS. The Brazilian collaboration is strong to this day. The third Congress in Buenos Aires, Argentina followed the first assembly of a newly formed Association of Trauma of Colombia in Bogota, Colombia. Since that time, the PTS matured and a Congress was held annually each November in various countries (Table 1). The three major non-US members of the PTS: Brazil, Colombia and Argentina and their delegates including professors Birolini, Holguin, and Rasslan were the earliest pioneers. Strong North American support was lent by the early leaders: Professors Rodriguez, Mulder and Ernest Moore. Professors Feliciano, Hoyt, Maull, Mattox, Maier,

Frykberg, Baker, and Briggs from the USA, Gutiérrez and Neira from Argentina, Tovar from Mexico, and many others served to mature the PTS.

The PTS annual congresses gained an international reputation with the participation of leading health professionals in Trauma and Critical Care from around the world. The Society celebrated its silver (25th) anniversary in 2015 in Medellin, Colombia, in a proud display of science and culture, with most of the Presidents in attendance. The participation, as has become usual with the PTS, involved not only surgeons, but also emergency physicians, internists, nurses, paramedics, residents, and medical students. The PTS just finished a successful joint Congress with Sociedade Brasileira de Atendimento Integrado ao Traumatizado (SBAIT) in Maceio, Brazil, in 2016.



Officers of the PTS:

As the Society was growing out of its infancy, the multi-national and multi-cultural diversity of the organization became a prominent pillar of strength and a universally admired trait. All countries of South America and their existent trauma and surgical organizations began to participate and contribute to the shared mission of the Society. Where none existed, there was a new enthusiasm to form local organizations and join the PTS. Very early on, the Society decided to alternate the Presidency between distinguished North American and South American surgeons, and the tradition lives on today (Annex 1 and Figure 2).

Each of these leaders, over the past three decades, reinforced the common mission, emphasized our identity among diversity, defined future goals for the Society, and inspired continued growth. The Presidents are assisted in their duties and responsibilities by an Executive Director. These two highest officers of the organization and their close partnership have been an

Figure 2: Presidents of PTS from 1987-2016

Row 1 (L to R) : A.Rodriguez (USA), 1987 -1989; D. Mulder (Canada), 1989-1990; E. Moore (USA), 1990-1991; F. Holguin (Colombia), 1991-1992; D. Birolini (Brazil), 1992-1993; C. Lucas (USA), 1993-1994; A. Baqueiro (Mexico), 1994-1995; K. Maull (USA), 1995-1996

Row 2 (L to R) : R. Ferrada (Colombia), 1996-1997; G.Gomez (USA) 1997-1998; D. Ortega (Peru); 1998-1999; D. Feliciano (USA), 1999-2000; J Neira (Argentina),2000-2001; R. Ivatury (USA) 2001-2002; S. Rasslan(Brazil), 2002-2003

Row 3 (L to R): S. Briggs (USA), 2003-2004; J.Lombardi (Chile) 2004-2005; D. Hoyt (USA) 2005-2006; C. Morales (Colombia) 2006-2007; A. Peitzman (USA) 2007-2008; J. Garcia (Venezuela), 2008-2009; R.Coimbra (USA),2009-2010

Row 4 (L to R): R.Pogetti (Brazil) 2010-2011; J. Puyana (USA) 2011-2012; A.Pacheco (Chile) 2012-2013; M.Lorenzo (USA) 2013-2014; G.Fraga (Brazil) 2014-2015; M.Aboutanos (USA) 2015-2016, C. Ordonez (Colombia) 2016-2017

"...the multi-national and multi-cultural diversity of the organization became a prominent pillar of strength and a universally admired trait."

essential recipe for the success of the Society. The persons who have had the privilege of this position are: Doctors Rodriguez, Holguin, Gomez, Maull, Peitzman and Ivatury. Doctor Scalea is the newly elected executive director and has taken charge since November of 2016. With a Board of Directors that was young and eager, and a Secretary-Treasurer of indefatigable enthusiasm and energy, the PTS made rapid strides in recruiting members and keeping the momentum flowing. Doctors Barba, Gomez, Peitzman, Puyana, and Aboutanos deserve immense credit for their tireless efforts as Secretary-Treasurers in bringing the Society to the 21st century. The current Secretary, Dr. Esteban Foainini is following their eminent example.

Offices of the PTS:

Initially located in Baltimore, thanks to the support from Dr. R.A. Cowley at The shock Trauma Center, the offices moved to Connecticut with a new secretary. The year 2003 was a significant game-changer when Dr. Peitzman took the Society to the University of Pittsburgh and nurtured it for the next 7 years. Under the leadership of Drs. Peitzman (as a secretary, President, and Executive Director) and Puyana (as a secretary, and then as President), the PTS saw tremendous advances in membership recruitment, record keeping, streamlining of PTS educational courses, as well as updating the Society web site.

On November 12, 2010, the headquarters office was moved from Pittsburgh to the current location in Richmond, at the Division of Acute Care Surgical Services, Department of Surgery, Virginia Commonwealth University (VCU) with a superb administrator, Ms. Gladys Soruco Shanklin. The PTS and VCU, under the benevolence of President Michael Rao and Dean Jerry Strauss MD, entered into a partnership, with the university providing significant financial assistance to the PTS office and its staff, and providing Continuing Medical Education (CME) for PTS congresses. The VCU President, Dean, and Department Chairs of Surgery, Doctors Neifeld and Kasirajan, attended the PTS Congresses in 2012 and 2015, and bonded this relationship. In 2016, the VCU School of Medicine formally signed a Memorandum of Understanding with the PTS for continued financial support of more than 250K annually, committed for another three years.

THE EVOLUTION: MISSION AND VISION IN ACTION

Maturation of the vision of the PTS:

Over the past decade, the PTS matured and entered adulthood. Where it was previously a clinically focused organization, it has now attained a trauma system oriented focus. Where once it was a congress - centered Society, it has now become a society with a Congress. It was a

nomad Society with frequent migrations, but is now a university based Society. In this maturation process, it has set a path to achieve financial independence and become solvent. The following narrative will attempt to illustrate some of this progress.

Membership services:

As of 2015, the Society membership has reached 27 countries, (21 Latin American & Caribbean: Argentina, Bolivia, Brazil, Canada, Chile, Colombia, Costa Rica, Cuba, Curacao, Dominican Republic, Ecuador, El Salvador, Guatemala, Mexico, Nicaragua, Panama, Paraguay, Peru, United States, Uruguay, Venezuela) (and 6 other countries: Angola, Finland, Qatar, Netherland, Norway, Spain). Active efforts are underway to increase the membership from the initiative of committee chair Dr. Maria F. Jimenez.

"The PTS believes that improvements in the care of the injured or ill patient, even in those countries with limited resources as in LMIC, are feasible and depend on organization and planning."

PTS Website:

The PTS saw significant advances in its website development under the leadership of Drs. Peitzman and Puyana (2003-2010). With the relocation of the PTS headquarters to Richmond, Virginia in 2010, a crucial decision was made to set the PTS website independent of a University server and its obligatory firewalls. This allowed for an exponential advancement in the functionality of the website to serve the members of PTS. It provided an automated toggle system between its three languages (English, Spanish, and Portuguese); an automated communication system (2011); an automated on-line payment system (2012); an automated on-line research competition and abstract submission and evaluation system (2013). A Vimeo-based video hosting and sharing platform (2014) was developed with the help of ex Vice president Daniel Ludi. This last feature makes available the myriad of lectures from leading experts on trauma and emergency care. On-line CME, a mobile device display, news center and social media links (2015-16) were recent enhancements.

The Educational agenda of the PTS:

The shared mission of the members of the PTS is to improve the care of the critically ill or injured patients in the Americas, especially in South America. The Society aims to achieve this by its constant emphasis on continuing medical education and collaboration, with an energized education committee under the direction of Dr. Paula Ferrada.

The PTS believes that improvements in the care of the injured or ill patient, even in those countries with limited resources as in LMIC, are feasible and depend on organization and planning. It argues that education and practice-based learning through all of its courses will have a positive impact on patient management. The courses totaled to 136 from 2010-2015, many of them through SBAIT. They included Surgical Skills in Trauma (DQT), Ultra-sound in Emergency and Trauma (USET) basic, USET Advanced, Advanced Disaster Medical Response (ADMR) course, World Health Organization (WHO) - Quality Improvement Course, Basic

Trauma Course for rural physicians/Nurses/Pre-hospital staff, Burn Course, Nursing Course, Air medical rescue course, and Pre-hospital Course, among others. These courses are standardized and propagated by using information technology (web-based) and also by social media. The demand for these courses are increasing throughout Latin America, as they are designed especially for the professionals and health care providers in LMIC and are more affordable than the European or American courses.

The Aurelio Rodriguez lecture:

Started in 2002 and given at the annual congress by invitation from the President, it was created to honor the founder, visionary and leader of the PTS. It is a tribute for his presence, contributions and participation that provide the “glue” to keep the society united. The lecture, on a contemporary topic, soon became a highlight of the congress and is greatly valued by both the lecturer and the audience. These are listed in Annex 1.

Involvement of local societies:

The next initiative by the PTS is to involve local societies and help them organize educational activities, offering them PTS courses at reduced prices and providing help with faculty and materials. The PTS also acts as the parent organization to several trauma-focused organizations in Mexico, Ecuador, Colombia, Panama, Bolivia, Peru, Paraguay, Uruguay, Brazil, and Argentina.

Exhibition of research and publications from South America:

It is well known that care of injury and surgical illness is overwhelmingly complex in its incidence and severity in these countries, even as the South Americans are recognized for their immense wealth of experience in these fields. Besides the adroit surgical skills that this experience brings them, they have developed many innovative, low cost solutions in their clinical practice befitting their own economic conditions. Prime examples include the Borraez (Bogota) bag for temporary abdominal closure from Colombia, the Pogetti pack (for internal compression of missile tracts of the liver) from Brazil, and the first endovascular abdominal aortic aneurysm repair (Parodi, Buenos Aires). Many such exciting developments take place every day in South America and the PTS provides these innovators an avenue to showcase their talents in Congresses and publications (the official Journal of the Society, Text books etc...)

“South Americans are recognized for their immense wealth of experience ... they have developed many innovative, low cost solutions in their clinical practice befitting their own economic conditions.”

PTS Research competitions

Held annually in the PTS Congress for attendings, residents and students have witnessed tremendous growth in the abstracts submitted to the Congress over the past 5 years (Figure 3). There were a record 900 abstracts in 2016, leading to the Congress presentations of 80 oral and 313 mini-oral presentations. One entire session was dedicated to injury prevention.

Coincidentally, the number of manuscript submissions to the Society's Journal, The Panamerican Journal of Trauma, Critical Care and Emergency Surgery (PAJTCCES) has escalated with a steady, noticeable improvement in quality.

Travelling scholarships for the winning abstracts are donations provided by past president Dr. Susan Briggs related to disaster management and in the area of injury prevention, past president Dr. Michel Aboutanos and Dr. Terrence O'Keefe: shining examples of inspiration. Impressively, the current President Dr. Carlos Ordonez and his team from Cali have excelled in successfully placing their abstracts in the extremely competitive oral presentations of the annual scientific meeting of the AAST. Their recent record of multiple publications in international journals has set new standards for the PTS.

Publications of the PTS:

PTS is active in publishing text books, manuals, and guides by its members. Many of them have been transferred to PTS ownership. Examples include: TRAUMA, (the official text book of the PTS, currently undergoing a revision with a new edition which will be available in both print, as well as an e-book, expected in 2017); Guidelines for Trauma Quality Improvement Programs (along with the WHO) in English, and Portuguese; Manuals of USET Advanced in Spanish; USET and ADRM - Portuguese and Spanish; Burn (Quemados) – Spanish. Others published by PTS members were translated into Spanish i.e.: Abdominal Compartment Syndrome; Trauma Manual; U.S. in the ICU; Cuidado Intensivo y Trauma, and the Guidelines for the development of trauma systems and essential trauma care for Latin America (Vega Et al 2016).

Journal:

PTS has long maintained its own Journal, the Panamerican Journal of Trauma, under the editorship of Doctor Ricardo Ferrada. After a hiatus in 2009, the Journal was resumed in 2012

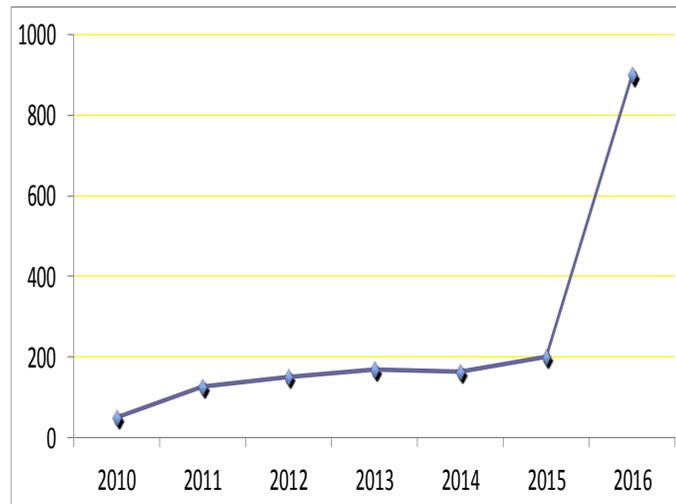


Figure 3: Number of abstract submissions for the annual congress 2010 to 2016

with a new editorial board under the editorship of Dr. Rao Ivatury and Jaypee publishers from India. Published quarterly as an e-publication, it covers all aspects of trauma, critical care, and emergency surgery. It aspires to be a vehicle for all PTS members to showcase their vast clinical experience and appears to be succeeding in this mission. More importantly, it has become a resource for the younger generation of medical students, residents, and junior faculty surgeons in their efforts at initiating scientific reporting. It has also become a conduit for publication of papers presented in research competitions at the annual congress. The editorial board promises to continue to attract clinical research based on the plentiful material that the PTS members are provided with, and also promises to continue encouraging young surgeons and trainees to publish. Medline indexing by the National Library of Medicine is a vital goal that hopefully can be reached this year.

International tele-grand rounds:

Dr. Antonio Marttos and the University of Miami/Ryder Trauma Center established the International Trauma Tele-Grand Rounds, weekly case presentations telecast and discussed by trauma surgeons around the world. Through videoconferencing, complex trauma case presentations and advanced trauma and critical care topics are discussed on a weekly basis. Case presentations provide students, residents, fellows, and attending physicians with an outstanding tool for education and sharing of medical expertise across borders. Continuing medical education (CME) credits are available to eligible physicians. To date, there have been 42 participating institutions, including: the United States, Brazil, Colombia, Bahamas, Haiti, Canada, Venezuela, Argentina, Panama, Puerto Rico, Dominican Republic, British Virgin Islands, Spain, Thailand, Turkey and Iraq; ranging from academic medical centers to urban trauma centers, military, community and rural hospitals (1,2). The PTS has adopted the Tele-Grand Rounds as one of their educational activities. In an academic agreement, these conferences are advertised on the AAST website for their information and participation. Efforts are under way to convert some of these into full-fledged publications in the Journal of Trauma and Acute Care Surgery.

International Fellowships and scholarships:

The PTS became involved in facilitating opportunities for young residents-in-training as well as junior surgeons to make use of the tremendous clinical material available in South and Central America and the science and art of trauma systems in the USA (3, 4). The objective of the fellowship is to improve surgical training for traveling fellows and to bring opportunities to the host institution to experience research and exchange.

North American scholars are benefited by coordinating their visit to a center of excellence in South or Central America, with a local expert hosting the visit, and the PTS providing options for housing, necessary travel details and logistics. Some recent winners of this international scholarships include residents from East Carolina University, University of Miami, Emory University and Indiana University. Other examples include a traveling Fellow to Bolivia to work on the PTS Trauma Registry (described below), or traveling for training in Ultrasound in Cuba. These International Fellowship opportunities received their funding from generous donations from individual members (like Paula Ferrada MD), and Post-Graduate Fellowship in

Global Health at Northwestern University Feinberg, SOM's Center for Global Health under the guidance of Dr. Mamta Swaroop.

In return, the host institutions in the Latin region develop relationships with North American institutions, providing networking opportunities and fostering collaborative research and programs. The North American institutions provide the PTS International Observership Program described below, as well as an international research scholarship. This scholarship aims to provide aspiring trauma surgeon-scientists from the Latin Region the opportunity for training in health services research and professional development at the North American institutions. Examples include a traveling Fellow to Bolivia, traveling for training in Ultrasound in Cuba, a research Fellow at The Center for Surgery and Public Health (CSPH) at Brigham and Women's Hospital under the mentorship of Dr. Adil Haider, with a focus on functional Outcomes and Recovery after Trauma Emergencies.

Short term rotations (3 to 6 weeks) are also available to South American physicians, nurses, paramedics, and students to visit trauma centers in USA to observe, audit and experience trauma system development and operations, nuances of quality improvement activities and team development and management in the care of the injured or critically ill surgical patients. This International Observership Program is open for qualified foreign national members who wish to visit and observe certain clinical and educational activities of affiliated trauma centers. Just at VCU alone, a total of 19 observers (from general practitioners to trauma fellows) made use of this opportunity, visiting from countries like Colombia, Brazil, Mexico, Chile, Ecuador, and Sudan.

Other centers such as University of Pittsburgh Medical Center and Alleghany Medical Center (Pennsylvania), Riverside County Regional Medical Center (California) and University of San Diego, Indiana University and University of Southern California are also actively involved. The PTS and its 18 affiliated societies and universities such as "Universidad del Valle" (Valle University) in Cali, Colombia, offer notable examples. Since 2011, their fellows in Trauma and Acute Care Surgery have had the opportunity to do a three-month internship at Virginia Commonwealth University (VCU) and also at the University of Pittsburgh.

In the past, many trauma fellows from R Adams Cowley Shock Trauma Center in Baltimore, Maryland, as well as fellows from Israel and other parts of the world spent one month under the tutelage of Dr. Ricardo Ferrada at Cali, Colombia, for an enormous experience of challenging trauma cases. Glowing testimonials of this experience were reported by Knuth, Ferrada, and others (5, 6, and 7).

Paramedic Exchange Program:

Emphasis on prehospital care, training, and development in the Latin American region became an important mission of the society, and so we created: a dedicated prehospital subcommittee, prehospital courses, prehospital sessions at the annual congress, and the Paramedic Exchange program. In 2014 The Virginia Association of Volunteer Rescue Squads (VAVRS) and PTS, under the leadership of Jane Laverne (USA) and PTS prehospital committee

Chair, Dr. Andres Rubiano, developed a Pre-Hospital Exchange Program between prehospital personnel of the state of Virginia and the prehospital personnel of various cities from Colombia. The result was a reciprocal exchange of paramedics who shared invaluable first-hand knowledge and experience and tactful training in emergency response in both high and LMIC settings. These exchanges were further enhanced by dedicated short term rotations with Richmond Ambulance Authority, and the Virginia State Office of EMS.

Nursing Education:

From the outset, the PTS has given enormous respect to the nursing field, recognizing it as an important member of the team. Early pioneers of the nursing section of the PTS, such as Mary Beachley from the Maryland Institute of Medical Sciences, and Vivian Lane from Connecticut held successful educational activities for nurses during PTS Congresses. Cristiane de Alencar Domingues from São Paulo is leading the nursing component of the PTS with energy and enthusiasm.

The PTS, along with Rutgers Robert Wood Johnson Medical School, Rutgers School of Nursing, and Robert Wood Johnson University Hospital (RWJUH), supported by a grant from Rutgers Centers for Global Advancement and International Affairs (GAIA Centers), hosted a global nursing symposium in New Jersey, USA in June 2016 under the leadership of Dr. Peck. Consuelo Burbano, from Cali, Colombia's University de Valle, and Lisa Falcon and Sue Willard, from Rutgers University, provided a broad overview of trauma systems concepts, specifically focusing on the development of a Trauma Nurse Manager role. The PTS effort, led by Cristiane de Alencar Domingues, Gaspar Reboredo, and Jasmine Garces, organized Trauma Nursing Courses for six nursing participants from Kenya and Colombia during the symposium. This is a prime example of academic partnerships between high-income U.S. universities that share with the PTS common surgical care missions in Latin America. The 2017 symposium is currently being planned for the month of March.

"From the outset, the PTS has given enormous respect to the nursing field, recognizing it as an important member of the team."

Trauma Leagues:

Academic Leagues have emerged in Brazil as a teaching experience in the early 1990s, consisting of student associations under the mentorship of a supervising teacher. Started by Dr. Mario Mantovani in Campinas, Brazil, and nurtured by past president of the PTS, Gustavo Fraga, Trauma League from UNICAMP (University of Campinas), UNICAMP, and another 9 Trauma Leagues in 1999 formed Congresso Brasileiro das Ligas do Trauma (CoBRaLT), the largest of the Trauma Leagues. They focus on trauma concepts and emergency care, and expose students to the ED, OR, and pre-hospital areas and also stimulate an interest in Trauma as a career (8). CoBRaLT is the central committee of all Trauma Leagues in Brazil, representing and coordinating them in all aspects of trauma and Emergency Surgery. It organizes the annual

Congress of the Brazilian Congress of Trauma Leagues, bringing together more than 800 medical students from different schools. Similar leagues have been started in the U.S.A. (Pittsburgh, Richmond).

In 2013, the first Ecuadorian Trauma and Emergency League (LATE) was created with the support of 2 universities; Universidad del Azuay and Universidad de Cuenca, in the city of Cuenca, Ecuador. This coincided with the inauguration of a brand new Emergency Medical Service (SIS ECU 911) and the development of new technology of the Trauma and Emergency Center of Hospital Vicente Corral Moscoso (HVCM). In 2013, LATE had 40 students and 4 tutors working on four main areas: prevention and promotion in the trauma field, medial education, investigation, and a discipline and control committee. The excitement of LATE was evidenced by the number of students who wanted to belong (113 in 2013 and 400 in 2014). Only 45 and 42 were admitted, respectively! The current membership totals 80 - who were responsible for 28 successful projects, including: suture and anesthetic block workshop and First Aid in Trauma, basic trauma course of PTS, “Respect to 911 call” to prevent false calls to the EMS, “become a blood donor”, educating high school students about the first responder role (612 students). Other accomplishments included: outreach to nearly 5000 people, five publications, 16 Training Courses, 14 Promotion Campaigns, 10 Oral presentations, three PTS International Travel Grants(2014, 2015, and 2016); first place oral presentation in 2013 PTS Congress in Panama and 20 research projects (17 completed).

Colombia is the latest country seeing the rise of trauma leagues titled Liga de Trauma y Emergencias del Pacifico. They are located in Cali under the guidance of Fundación Valle de Lili and current President of the PTS, Dr. Carlos Ordonez. It has more than 50 medical students, all of them members of the PTS.

The student body of the Trauma Leagues is growing not only in numbers, but also in participation in local and international congresses with improving quality of academic participation. Admittedly, Trauma Leagues are not an original PTS initiative. Many of the Leagues and international student organizations, however, are members of the PTS and now find their international meeting ground and networking at the PTS annual congress.

The PTS has its own student section with an administrative structure that involves the membership of various countries. They have been very active in the past congresses of the society, conducting their own scientific program with the help and participation of senior members of the Society.

PTS is proudly involved in carrying the great movement of the youth forward and creating robust opportunities for its escalation.

Registry:

Changing the trajectory of the colossal casualty of trauma requires preventative strategies informed by injury surveillance and risk factor identification. A lack of reliable data leaves the magnitude of the injury problem largely unknown in many LMICs. Trauma registries promise to

"...the real need (in global health) is to close the data gaps, especially in low and middle-income countries, so that we no longer have to rely heavily on statistical modelling for data on disease burden" Margaret Chan, Director General of WHO

fill this void by capturing important information about the continuum of the patients' care, as well as serving as a tool to oversee quality of care. Despite widespread recognition of the value of trauma registries and their extensive adoption in developed countries, only 50 registries across 21 LMICs are documented in the literature (9). This enormous burden of injury in LMIC needs to be defined in its nature and magnitude. It substantiates the words of Margaret Chan, Director General of WHO, "...the real need (in global health) is to close the data gaps, especially in low and middle-income countries, so that we no longer have to rely heavily on statistical modelling for data on disease burden" (10).

The PTS, with assistance from the International Trauma System Development Program (ITSDP) at Virginia Commonwealth University (VCU), has been a pioneer in this field having developed a Trauma Registry for this purpose. Initial implementation in countries, such as Ecuador, Colombia, and Panama has led to collection of sizable data and many analytical reports from these countries. Examples include 15 publications (9 published in the Journal of the Society) about the registry and with data from the registry of the PTS collected from "Hospital Universitario del Valle (The largest university hospital of the southwest region of Colombia) and Fundación Valle del Lili (The largest level I trauma center of the southwest region of Colombia) (11-14).

Recent advancements to the initial versions of the registry have been impressive: availability of desktop and laptop versions, mobile friendly, and scalable design and compatibility with multiple devices such as smartphones, iPads, and other tablets. The modular system and database design allows speedy customization. Logical grouping of elements allows turning on and off of elements at the tier level. Pre-hospital tier captures a total of 22 data points, essential elements tier captures 27 data elements corresponding to the minimum number of data points needed to support a trauma quality program and Tier 2 includes additional elements and ICD 10 coding. A full registry has 250 data elements for comprehensive capture of injury data at various levels of health facilities (basic, general hospitals, definitive referral centers). ITSDP undertakes the set-up, implementation and roll-out of the registry in interested countries. It is poised to become more widespread. Eventual progression to a Panamerican Trauma Data Bank is a hopeful outcome.

"Equally, we cannot talk about systems, if our society is not involved in creating and advancing the very tools that create the system including data registries and management as well as pre-hospital and hospital quality improvement initiatives....."

International Collaboration:

The PTS has been continually pursuing collaboration with international trauma organizations and societies. In the past 5 years, collaboration was established with the Trauma Association of Canada, the Eastern Association for the Surgery of Trauma, the World Society of Emergency Surgery, and the Trauma Center Association of America. In 2012, the PTS co-organized the World Trauma Congress, in Rio de Janeiro, with 3,500 attendees, and that same year, it became a member of the World Trauma Coalition and participated in the two world congresses: Frankfurt in 2014, and New Delhi in 2016. In 2013, the PTS became an official member of the World Health Organization's Global Alliance for the Care of the Injured. Most notably an MOU with the American Association of the Surgery of Trauma (AAST) was completed in 2016 in areas of international exchange of fellows and scholars, and international Grand Rounds.

Apart from Individual societies, multiple MOU's were signed with individual academic centers that further the mission of the Society. These include MOUs with the University of Miami for international grand rounds, the University of Seattle to develop an online QI platform, VCU to develop the PTS registry, and the University of Azuay and the Ecuadorian National Network for Research and Education (CEDIA) for the development of an electronic platform for Essential Trauma Care Guidelines (EsTC) for trauma center site evaluation and verification in the Latin Region - tactful steps in the development of tools for trauma system development in the Latin Region.

The EsTC platform was field tested in 2015 in Bolivia for a site evaluation of two large urban hospitals for verification of their resources and capabilities to care for the injured. The impact and development of these basic tools can, with minor adjustments, be applicable in other LMIC: an MOU with the Sri Venkateswara Medical Institute of Tirupathi (SVIMS) in Andhra Pradesh, South India was just signed to implement trauma care and trauma education in that State.

Injury & Violence Prevention:

Essential to the new direction of PTS to address systems of trauma care, injury prevention became an integral component of the society's mission. Initial sporadic lectures in the PTS congresses prior to 2010 have evolved to the development of a PTS injury and violence prevention committee in 2012, and an injury and Violence Travel Scholarship in 2013. Most notably, a dedicated injury prevention research competition was launched in 2016, highlighting 20 podium presentations from the U.S.A., Brazil, Argentina, Venezuela, Ecuador, and Colombia. In 2014, past president Gustavo Fraga inspired PTS in joining the International Yellow May movement, initiated in Brazil, to promote global awareness of Road Traffic Injuries and the importance of their prevention. Additionally, in 2015 an MOU was established with the U.S. based National Network of Hospital Based Violence Intervention Programs (NNHVIP) to promote international initiatives and collaborative program development. Finally, the presidential address by M. Aboutanos in 2016 called to action for the PTS to develop tools for

Hospital Community based injury and violence prevention that included 1. Essential Guidelines for injury prevention program development; 2. Regional Injury prevention Data Base integrated with the PTS registry; 3. Guides for Hospital based intervention Research & Grants; and 4. Integrated Platform for site evaluations.

“..... the Society has grown into a strong and relevant force in the development of educational courses, prevention programs, publications, and scientific research forums that improve trauma management”

Summary

In summary, the PTS has entered its fourth decade with many accomplishments, having survived considerable challenges. It exemplifies the anatomy of a successful society, created for a unified reason: to do things of value and worth that can be done better together. The PTS leadership appreciates this distinguishing characteristic. The PTS is led by policy and strategy, and not by the personality of the moment (15). It exhibits a coherency in the pursuit of what really matters, its stated mission. The Society’s Presidents have consistently given their members a message of unity among diversity “see the value of the membership, the importance of attending our annual meeting, and the opportunity to get involved in the business of the society” - R. Coimbra, 2010; “We need to: broaden the official participation of Trauma Society Boards of different countries in PTSorganize Trauma Societies in the American countries without one and promulgate existing trauma courses,to integrate actions and exchange experiences between PTS and regional Trauma Societies without losing our identity” - R. Poggetti, 2011-; “The future of the PTS is promising;The scientific program is of high quality” - JC Puyana, 2012; “..... The Society has grown into a strong and relevant force in the development of educational courses, prevention programs, publications, and scientific research forums that improve trauma management” - M. Lorenzo, 2014. Finally M. Aboutanos, immediate past President of the PTS, defined for us the next frontier: “Equally, we cannot talk about systems, if our society is not involved in

The PTS has come a long way in cohort with its family societies: a melting pot of different races, cultures and nationalities with a shared dream and mission. Undoubtedly, it has improved patient care by an interchange of ideas and expertise, expanding the scope of practice beyond injury to critical illness

creating and advancing the very tools that create the system including data registries and management as well as pre-hospital and hospital quality improvement initiatives.....” (16)

The PTS has come a long way in cohort with its family societies: a melting pot of different races, cultures and nationalities with a shared dream and mission. Undoubtedly, it has improved patient care by an interchange of ideas and expertise, expanding the scope of practice beyond injury to critical illness. Through educational courses, international fellowships and observerships, it engaged its youth. It stimulated interest in our specialty and kindled flames of curiosity and leadership in them. It showcased the vast South American trauma experience and the innate adroit surgical ability of Latin American surgeons. It created new paradigms applicable to these countries. It initiated injury prevention strategies. It is on the verge of addressing system issues.

It is crucial that the PTS look ahead to the future and face the challenges that inevitably lurk around the corner. Uncertainty, change, and risk are a given. Dealing with complexity involves active receptivity, clarity, openness and consensus. Where should the PTS be in a decade or so? What work needs be done, who should be doing what? Is what is being done working? There are pragmatic questions that the new leadership and the Society need to face and answer strategically: What is the PTS? Is it a collection of different local societies, or is it an integrated family, where the societies are willing to lose their identity for the greater prize? Is it truly “Panamerican”? Is there a need to “cut the cord”, as some have suggested? It is very presumptuous and conceited to think one part of our society is a “cord” of nourishment to the other!

In closing, we humbly propose that it is imperative for the PTS to appreciate that in this increasingly complex system, order flows from interactions, not from central control. It should continue to emphasize the small positive actions from the membership body to benefit from these interactions and adaptations. Playing on the global stage, sharing problems, seeking collaboration and creating partnerships is, undoubtedly, the apposite strategy.

The PTS"engaged its youth. It stimulated interest in our specialty and kindled flames of curiosity and leadership in them. It showcased the vast South American trauma experience and the innate adroit surgical ability of Latin American surgeons. It created new paradigms applicable to these countries. It initiated injury prevention strategies. It is on the verge of addressing system issues..."

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ANNEXES

Annex 1: Annual Congresses, Presidents and Aurelio Rodriguez Lecturers

Year	City	President	Aurelio Rodriguez Lecturer	Topic: Aurelio Rodriguez Lecturer
1988	San Juan, Puerto Rico	A.Rodriguez, (USA)		
1990	Sao Paulo, Brazil	A, Rodriguez (USA)		
1991	Buenos Aires, Argentina	F. Holguin (Colombia)		
1992	Guadalajara, Mexico	E. Moore, (USA)		
1993	San Jose, Costa Rica	D. Birolini (Brazil)		
1994	Cartagena de Indias, Colombia	C. Lucas (USA)		
1995	Salvador, Brazil	A .Baqueiro (Mexico)		
1996	Cartagena de Indias, Colombia	K. Maull (USA)		
1997	Miami, USA	R. Ferrada (Colombia)		
1998	Buenos Aires, Argentina	G.Gomez (USA)		
1999	Isla Margarita, Venezuela	D. Ortega (Peru)		
2000	Ciudad de Panama, Panama	D. Feliciano (USA)		

Year	City	President	Aurelio Rodriguez Lecturer	Topic: Aurelio Rodriguez Lecturer
2001	Monterrey, Mexico	J Neira (Argentina)		
2002	Sao Paulo, Brazil	R. Ivatury (USA)	Ricardo Ferrada (Colombia)	Education and Trauma
2003	Lima, Peru	S. Rasslan (Brazil)	Gerardo Gomez (USA / Venezuela)	Sepsis, what is new?
2004	Miami, USA	S. Briggs (USA)	Donald Trunkey (USA)	Violencia, Drogas y Trauma en el Hemisferio Occidental: Una solución alternativa.
2005	Guayaquil, Ecuador	J.Lombardi (Chile)	Ernest Moore (USA)	Blood substitutes in Trauma
2006	Cartagena de Indias, Colombia	D. Hoyt (USA)	C. Willam Schwab (USA)	The winds of war
2007	Puebla, Mexico	C. Morales (Colombia)	Jorge Neira (Argentina)	Nuevos aspectos en la resucitación de volumen en la atención inicial del paciente traumatizado
2008	Campinas, Brazil	A.Peitzman (USA)	Raul Coimbra (USA / Brazil)	Trauma as a Disease: The public's perception
2009	Caracas, Venezuela	J. Garcia (Venezuela)	Renato S. Poggetti (Brazil)	Trauma prevention
2010	Montevideo, Uruguay	R.Coimbra (USA)	Ronald Maier (USA)	Molecular and genetic aspects of the response to trauma
2011	Asuncion, Paraguay	R.Pogetti (Brazil)	Armando Baqueiro (Mexico)	The evolution of teaching and management of Trauma in Mexico in the last 25 years
2012	Medellin, Colombia	J. Puyana (USA)	Ethan Nadelmann (Colombia)	Why we need to end the war on drugs
2013	Santiago, Chile	A. Pacheco (Chile)	Ricardo Sonneborn (Chile)	Origin and destination in trauma
2014	Panama City, Panama	M.Lorenzo (USA)	Stanley Motta (Panama)	Why trauma? A personal experience
2015	Santa Cruz, Bolivia	G.Fraga (Brazil)	Rao Ivatury (USA)	PTS: a look back and a look forward
2016	Maceio, Brazil	M.Aboutanos (USA)	Thomas Scalea (USA)	Mentoring the future Trauma Leaders: Implications for the Panamerican Trauma Society

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