CURRICULUM VITAE

Brendan Carvalho, MBBCh, FRCA, MDCH

A. Identifying data:

Name:	Brendan Carvalho
Date and Place of Birth:	1971, South Africa.
CA Medical License:	On request

B. Academic History:

Degrees, Colleges and Universities Attended:

1989-1994	**MBBCh,** University of the Witwatersrand, Johannesburg, SA
1999	**MDCH,** University of London, London, UK
2000	**FRCA,** Royal College of Anaesthetists, London, UK
2001	**Certificate in Clinical Research,** Plymouth University, UK

Residency and Fellowship Training:

1993	Clerkship in Anesthesia, Massachusetts General Hospital, Harvard Medical School, Boston
1993	Clinical clerkship, Letaba Community Hospital, South Africa
1994	Student Internship, Baragwanath Hospital, South Africa
Jan 95 - Dec 95	Internship in Obstetrics and Gynaecology, General Medicine, Surgery, Groote Schuur Hospital, Cape Town, South Africa
Feb 1996 - Aug 1997	Senior House Officer Residency: Medicine, Oncology, Cardiology North Staffordshire Royal Infirmary, Stoke-on-Trent Royal Free Hospital / St Bartholomew's Hospital, London Northern General Hospital, Sheffield

Senior House Officer Residency, Anaesthesia and ICU

Aug 1997 - Aug 1998	Royal Surrey County Hospital, Guildford
Aug 1998 - Feb 1999	St Peter's Hospital, Chertsey
Feb 1999 - May 1999	Queen Square Hospital, London
May 1999 - Aug 1999	Guy's and St Thomas' Hospital, London

Specialist Registrar Residency, Anaesthesia and ICU, South West School of Anaesthesia, UK
Sept 1999 - Oct 2000 Royal Devon & Exeter Hospital, Exeter
Nov 2000 - Oct 2001 Derriford Hospital, Plymouth

Obstetric Anesthesia Fellowship, Department of Anesthesia, Stanford University, Stanford, CA
Oct 2001 - Sep 2002

Honors and Academic Awards:

Canadian Anesthesiologists' Society, 2012: Best Paper in Obstetric Anesthesia Award (Senior Author)
Society for Obstetric Anesthesia and Perinatology, 2012: Best Paper of Scientific Meeting
Society for Obstetric Anesthesia and Perinatology, 2012: Teacher of the Year
Society for Obstetric Anesthesia and Perinatology, 2012: Gertie Marx Symp.: 3rd place (Co-Author)
Stanford University Teaching Scholar Award 2012: Transthoracic Echo Curriculum for Obstetric Anesthesia
Society for Obstetric Anesthesia and Perinatology, 2011: Best Paper Finalist (Senior Author)

Society for Obstetric Anesthesia and Perinatology, 2010: Best Paper Finalist (Presenting Author)
Society for Obstetric Anesthesia and Perinatology, 2009: Gertie Marx Symp.: 2nd place (Senior Author)
Stanford University Hospital, August 2007: Attending of the Month Award
Society for Obstetric Anesthesia and Perinatology, 2007: Gertie Marx Symp.: 3rd place (Senior Author)
SPCTRM Intensive Clinical Research Course, Stanford University, Sept 2006: Best Protocol
Obstetric Anaesthetists Association of Great Britain, 2006: Best abstract of Annual Scientific Meeting (Senior Author)
Society for Obstetric Anesthesia and Perinatology, 2006: Gertie Marx Symp.: 1st place (Senior Author)
Stanford University Anesthesiology Department, May 2006: Attending of the Year Award
Society for Obstetric Anesthesia and Perinatology, 2004: Gertie Marx Symp.: 2nd place (Co-Author)
Society for Obstetric Anesthesia and Perinatology, 2003: Gertie Marx Symp. 3rd place (Presenting Author)
Stanford University Hospital, May 2003: Attending of the Month Award
University of Witwatersrand, South Africa, 1994:
Noristan Prize: The most distinguished student in the final year of Obstetrics study
Smith & Nephew Prize: Highest graduating mark in Orthopedics
University of Witwatersrand, South Africa, 1989-91: Distinctions (honors) in: Hematology, Pharmacology, Forensic Medicine, Anatomy, Physiology and Community Medicine.
University of Witwatersrand, South Africa, 1992-94: Distinctions (honors) in: Medicine, Obstetrics, Gynecology, Orthopedics, Pediatrics.
Greenside High School, South Africa 1988: Full academic colors

Study and Research Support, Grants and Funding:

Past:

2011 *Pacira Pharmaceuticals*
Continuous Vs. Single-shot Local Anesthetic Wound and Nerve Administration
Principal Investigator

2009 *Epimed International, Inc.*
Continuous intrathecal cesarean anesthesia
Principal Investigator

2009-11 *EKR Therapeutics*
A Study to Evaluate the Effects of Epidural Lidocaine Administration on the Pharmacokinetic and Pharmacodynamic Profiles of Extended-Release Epidural Morphine (DepoDur™) in Patients Undergoing Cesarean Delivery
Principal Investigator

2008-10 *The Institute for Immunity, Transplantation and Infection, Stanford*
A Systems Biology Approach for Discovery of Biomarkers for Inflammatory Pain
Co-Investigator

2006-8 *NIH K12 award (BIRCWH scholarship mentored research training grant)*
Acute and Chronic Persistent Pain Following Cesarean Delivery:
The role of cytokines
Principal Investigator (Mentors: M Angst and D Clark)

2007 *I Flow*
Incisional Wound and Systemic Cytokines, Nerve Growth Factor, Prostaglandin E2 and Substance P Release Following Cesarean Delivery
Principal Investigator

2005 *Endo Pharmaceuticals*

DepoDur for Postoperative Pain Management after Cesarean Section: A randomized, double-blinded, active-controlled study.
Principal Investigator

2005 *Iris Litt Grant*
Coagulation effects of a crystalloid compared to a colloid preload prior to Cesarean delivery under regional anesthesia
Principal Investigator

2004 *LPCH Patient Innovations Award*
Grant Obstetric-Anesthesia Simulator: Training in Obstetric Crisis Management
Co-Investigator

2004 *Pfizer Pharmaceuticals and Department of Anesthesiology, Stanford*
Valdecoxib For Postoperative Pain Management After Cesarean Section: A randomized, double-blinded, placebo-controlled study.
Principal Investigator

2004 *Dynatherm Medical, Inc.*
Effect of a New Handwarming Device (Vitalheat) on Maternal Temperature during Regional Anesthesia for Cesarean Delivery.
Co-Investigator

2004 *Indigo Orb, Inc.*
AutoDetect Syringe: An investigational spring-loaded “loss-or resistance” epidural syringe.
Principal Investigator

Present:

2013- *National Institutes of Health (NIH) Clinical Loan Repayment Program (LRP) Award*
National Institute of Child Health and Human Development (NICHD)
Senior Investigator/Mentor (Principal Investigators: Kathleen Brookfield)

2012- *Child Health Research Institute (CHRI) Innovations in Patient Care Award*
Sepsis Surveillance in Obstetric Patients
Mentor and Senior Investigator (Principal Investigator: Hilton)

2012- *Child Health Research Institute (CHRI) Harman Faculty Scholar Award*
Pharmacokinetic and Pharmacodynamic Modeling of Magnesium Sulfate In the Mother and Exposed Neonate
Principal Investigator

2012- *R01 HD070795-01A1*
Preventing the Neonatal Narcotic Abstinence Syndrome
Co-investigator (Principal Investigators: Drover, Peltz)

2011- *Australian and New Zealand College of Anaesthetists (ANZCA)*
Methylnaltrexone to prevent intrathecal morphine-induced pruritus after caesarean delivery: Multicenter MEAN ITCH Trial
Co-investigator

2011- *Department of Anesthesiology, Stanford University*
Continuous Femoral Nerve Block for the Management of Fracture Neck of Femur
Co-investigator

C. Employment history:

Oct 2002 - Jan 2004	Clinical Instructor, Department of Anesthesia, Stanford University School of Medicine, Stanford, CA
Feb 2004 - Dec 2010	Assistant Professor, Medical Center Line Department of Anesthesia, Stanford University School of Medicine
Jan 2011 - Present	Associate Professor, Medical Center Line Department of Anesthesia, Stanford University School of Medicine
March 2013 - Present	Chief, Division of Obstetric Anesthesia Department of Anesthesia, Stanford University School of Medicine

D. Public and professional service:

Memberships of Professional Associations:

Association of University Anesthesiologists
American Society of Anesthesiologists
California Society of Anesthesiologists
International Anesthesia Research Society
American Society of Regional Anesthesia and Pain Medicine
Society for Obstetric Anesthesia and Perinatology
Fellow of the Royal College of Anaesthetists
Obstetric Anaesthetists Association of Great Britain
Association of Anaesthetists of Great Britain and Ireland

Editorial and Committee Posts:

2013	**American Heart Association** Cardiac Arrest in Pregnancy Scientific Statement Writing Group
2013-14	**California Society of Anesthesiologists (CSA)** Education Committee
2013-	QEP Committee, Anesthesia Department, Stanford
2013-	Professional Practice Evaluation Committee (PPEC), Obstetrics Department, Stanford
2013-	Johnson Center Executive Committee, Lucile Packard Children's Hospital
2013-	Appointments and Promotions Committee, Anesthesia Department, Stanford
2013-	Governance Committee, Anesthesia Department, Stanford
2013	**ARSA** ACGME Fellowship Exploratory Committee
2013-	**SOAP** Bylaws Committee
2013	Development and Mentoring Workgroup, Anesthesia Department, Stanford
2013	Future of Anesthesiology Workgroup, Anesthesia Department, Stanford
2012-13	**ASA** Obstetric Anesthesia Educational Track Subcommittee
2012-	Education Committee, Anesthesia Department, Stanford
2012-	Departmental Faculty **Senator**, Stanford University School of Medicine
2012-	**CSA** District 4 Delegate
2012	**SOAP** Taskforce Director (CPR Pregnancy Consensus Statement)
2012	**SOAP** Webcast Taskforce Member
2012-	**Editorial Board** Case Reports in Anesthesiology
2012-	**Editorial Board** Journal of Anesthesiology and Clinical Science (JACS)
2011-	**Editorial Board** Open Journal of Anesthesiology (OJAnes)
2011-	**Editorial Board** Journal of Pain and Relief
2011-12	**California Society of Anesthesiologists** District 4 Alternate Delegate

2011-14	Technology Assessment Committee, Stanford Hospital and Clinics
2011	Clinical Commitment Committee, Anesthesia Department, Stanford
2011-13	**SOAP** Director-at large (Board member position)
2011-	**Sol Shnider** Annual Meeting Planning Committee
2011-12	**SOAP** Annual Meeting Planning Committee
2011-	**Editorial Board** ISRN Anesthesiology
2011-	**Editorial Board** International Journal of Obstetric Anesthesia
2011-	**ASA** Obstetric Anesthesia Simulation Development
2010	Incentives and Compensation Committee, Anesthesia Department, Stanford
2009-10	**ASA** Obstetric Anesthesia Research Subcommittee
2008-	**Faculty of 1000 Medicine**, Evaluation Board Faculty Member and Reviewer, Obstetrical Anesthesia and Pain Management Section
2008-	**ABA** Alternative Pathway Program Enrollment
2007-	**SOAP** Research Committee Member
2007	**ASA** Obstetric Anesthesia Practice Parameter Consultant
2006	**IARS** Mentorship Initiative Mentor
2006-9	**SOAP** Membership Committee Member
2005-8	**SOAP** Obstetric anesthesiology fellowship training ACGME accreditation committee
2005	**SOAP** Scientific Program Committee (Transatlantic SOAP-OAA Symposium)
2005	**FAER** Medical Student Research Fellowship Mentor
2000-1	**Royal College of Anaesthetists**, UK: Specialist Training Committee Trainee Representative.
2000	Association of Anaesthetists, UK: Trainee Linkman.
1992-4	**University of Witwatersrand**, South Africa: The official university medical journal, the *Leech* - editorial committee Medical school newsletter, the *Haemorrhoid* - founder and editor Medical school graduation magazine - editor-in-chief

Ad Hoc Reviewer For: *Anesthesiology; Anesthesia and Analgesia; International Journal of Obstetric Anesthesia;* British Journal of Anaesthesia; *European Journal of Pain; Journal of Clinical Anesthesia; Lancet; PLOS ONE; Journal of Research in Medical Sciences; Dove Medical Press; Acta Anaesthesiologica Belgica; British Medical Bulletin; Minerva Anestesiologica; Anesthesiology Research and Practice; Case Reports in Anesthesiology; Annals of Surgery; First Consult; Journal of Anesthesiology and Clinical Science.*
Abstracts Reviewer For: *Society for Obstetric Anesthesia and Perinatology: Annual Scientific Meeting American Society of Anesthesiologists: Annual Scientific Meeting*

Mentorship and Supervision Role:

OB Anesthesia Postgraduate Fellowship:
- 2013-14 Yuri Cho, Naola Austin, Adrienne Duffield
- 2012-13 Kulsum Akbar
- 2011-12 Farheen Mirza, Gill Hilton
- 2010-11 Pervez Sultan, Cristina Gutierrez
- 2009-10 Phil Rubin, Gill Hilton, Sebastian Ruehlmann
- 2008-9: Lindsey Atkinson, Scott Harter, Vicki Ting
- 2007-8: Pedram Aleshi, Lee Coleman, Leinani Aiono-Le Tagaloa
- 2006-7: Amy Evers, Sachin Mehta
- 2005-6: Vince Campitelli, Laura Roland
- 2004-5: Leslie Andes, Alexander Butwick
- 2003-4: Cathy Brummel, Andrea Fuller

FAER Medical Student Anesthesia Research Fellow Program:
Tomás Lazo 2012, Louise Wen 2011, Jocelyn Wong 2011, Carolan Hass 2009, Daniel Broderick 2007, Jonathan Tang 2006

Special Clinical Elective in Anesthesia:
Lou Lou Zheng 2013, Javier Lorenzo 2007

Anesthesia Resident Research Elective
Damian Horstman 2006
Undergraduate/Medical Student Research Elective
Christina Danial 2007, Phillip Wang 2005,2009, Amit Saxena 2004-6, Surbi Sarna 2004-5
Jocelyn Wong 2009, Lei Tian 2010, Luo Luo Zheng 2013
Thesis Examination (Dr Y Al-Tamimi, the University of Western Australia) 2011

E. Post Degree Awards:

2011 Basic and Advanced Cardiac Life Support
2009 Basic and Advanced Cardiac Life Support
2007 Basic and Advanced Cardiac Life Support
2003 Neonatal Resuscitator Provider Certification
2001 Certificate of Clinical Research (University of Plymouth)
2001 Medical Acupuncture Certificate of Competence, UK
2000 FRCA (Royal College of Anaesthetists, London, UK)
1999 Pediatric Advanced Life Support (PALS) instructor
1999 Medical Diploma in Clinical Hypnosis (University of London)
1999 PALS (with instructor recommendation)
1998 ECFMG Certification
1997 Advance Trauma Life Support
1997 Advanced Cardiac Life Support (with instructor recommendation)

F. Scholarly Publications:

Peer reviewed articles: 79 (published/accepted), **8** (submitted)

1. **Carvalho B**, Quiney NF. “Near Miss" Hyperkalaemic Cardiac Arrest Associated with Rapid Blood Transfusion. *Anaesthesia* 1999; 54(11):1094-6.
2. **Carvalho B**, Sanders D: The output of two sevoflurane vaporizers in the presence of helium. *British Journal of Anaesthesia* 2002; 88(5):711-3.
3. Feldman M, James U, **Carvalho B**, M Underwood. Single session hypnotherapy for smoking cessation. A cost-effective alternative? *European Journal of General Practice* 2002; 8(6):75-6.
4. **Carvalho B**, Benton JI, Vickery PJ, Sneyd JR, Davies PRF, Langton JA. Long term functional recovery following day-case laparoscopic sterilization: inhalational versus TIVA maintenance. *Ambulatory Surgery* 2002; 10(1):45-51.
5. **Carvalho B**, Ridler BM, Thompson JF, Telford RJ. Myocardial ischaemia precipitated by acute normovolaemic haemodilution. *Transfusion Medicine* 2003; 13:165-168.
6. **Carvalho B**, Mirikitani EJ, Lyell D, Evans DA, Druzin M, Riley ET. Neonatal chest wall rigidity following the use of remifentanil for Cesarean Delivery in a Patient with Autoimmune Hepatitis and Thrombocytopenia: A Case Report. *Int J Obstet Anesth* 2004; 13:53-56.
7. **Carvalho B**, Coghill J. Obstetric anaesthesia workload and time of day. *Int J Obstet Anesth* 2004; 14:126-127.
8. **Carvalho B**, Riley E, Cohen SE, Gambling D, Palmer C, Huffnagle HJ, Polley L, Muir H, Segal S, Lihou C, Manvelian G. Single-dose, sustained-release epidural morphine in the management of postoperative pain after elective cesarean delivery: results of a multicenter randomized controlled study. *Anesth Analg*. 2005 Apr;100(4):1150-8.
9. **Carvalho B,** Cohen SE, Giarrusso K, Durbin M, Riley ET, Lipman S. "Ultra-light" patient-controlled epidural analgesia during labor: effects of varying regimens on analgesia and physician workload. *Int J Obstet Anesth*. 2005 Jul;14(3):223-9.
10. **Carvalho B**, Durbin M, Drover DR, Cohen SE, Ginosar Y, Riley ET. The ED50 and ED95 of intrathecal isobaric bupivacaine with opioids for cesarean delivery. *Anesthesiology*. 2005 Sep;103(3):606-12.
11. **Carvalho B**, Cohen SE, Lipman SS, Fuller A, Mathusamy AD, Macario A. Patient preferences for anesthesia outcomes associated with cesarean delivery. *Anesth Analg*. 2005 Oct;101(4):1182-7.

12. Fuller AJ, **Carvalho B**, Brummel C, Riley ET. Epidural anesthesia for elective cesarean delivery with intraoperative arterial occlusion balloon catheter placement. *Anesth Analg*. 2006 Feb;102(2):585-7.
13. **Carvalho B**, Wang P, SE Cohen. Labor patient-controlled epidural anesthesia: A survey of practice in Californian hospitals. *Int J Obstet Anesth*. 2006 Jul;15(3):217-22.
14. **Carvalho B**, Chu L, Fuller AJ, Cohen SE, Riley ET. Valdecoxib For Postoperative Pain Management After Cesarean Section: A randomized, double-blinded, placebo-controlled study. *Anesth Analg*. 2006 Sep;103(3):664-70
15. **Carvalho B**, Angst MS, Fuller AJ, Lin E, Mathusamy AD, Riley ET. Experimental heat pain for detecting pregnancy-induced analgesia in humans. *Anesth Analg*. 2006 Nov;103(5):1283-7.
16. Butwick AJ, **Carvalho B.** Neuraxial anesthesia for cesarean delivery in a parturient with type 1 von Willebrand's disease and scoliosis *J Clin Anesth*. 2007 May;19(3):230-233.
17. **Carvalho B**, Fuller AJ, Brummel C, Cohen SE. Reducing Superficial Bleeding and Pain during Labor Epidural Catheter Insertion. *Int J Obstet Anesth*. 2007 Feb;16 (2):116-21.
18. Butwick AJ, **Carvalho B**. The Effects of Crystalloid and Colloid Preload on Coagulation in Pregnant Patients Prior to Elective Cesarean Delivery using Thromboelastography. *Can J Anaesth*. 2007 Mar;54(3):190-5.
19. **Carvalho B**, Roland LM, Chu LF, Campitelli VA, Riley ET. Single-dose, extended-release epidural morphine (DepoDur™) Compared to Conventional Epidural Morphine for Post-Cesarean Pain. Anesth Analg. 2007 Jul;105(1):176-83
20. **Carvalho B**, Fuller AJ, Brummel C, Durbin M, Riley ET. Fetal oxygen saturation after combined spinal epidural labor analgesia: A case series J Clin Anesth. 2007 Sep;19(6):476-8
21. Riley ET, **Carvalho B**. The Episure™ Syringe: A Novel Loss of Resistance Syringe for Locating the Epidural Space. Anesth Analg. 2007 Oct;105(4):1164-6.
22. Butwick AJ, Lipman S, **Carvalho B**. Intraoperative Lower Body Forced Air Warming During Cesarean Delivery Under Spinal Anesthesia Does Not Reduce Maternal Hypothermia or Shivering. Anesth Analg. 2007 Nov;105(5):1413-9
23. Cohen SE, Andes LC, **Carvalho B**. Assessment of Knowledge Regarding Cardiopulmonary Resuscitation of Pregnant Women. Int J Obstet Anesth. 2008;17:20-5.
24. **Carvalho B**, Butwick AJ, Saxena A, Macario A. Anesthesia coverage and interventions for vaginal twin deliveries Int J Obstet Anesth. 2008 Jul;17(3):212-6. (*Cited in lead editorial*)
25. **Carvalho B,** Clark JD, Angst MS. Incisional Wound and Systemic Cytokines, Nerve Growth Factor, Prostaglandin E2 and Substance P Release Following Cesarean Delivery. *J Pain. 2008 Jul;9:650-7.*
26. **Carvalho B.** Labor and Cesarean Delivery Patterns. *Anesthesiology* 2008; Jul;109(1):161-2
27. Aiono-Le Tagaloa L, **Carvalho B.** Epidural Labor Analgesia in a Patient Receiving Fondaparinux. *Int J Obstet Anesth*. 2008;18(1): 945.
28. Angst MS, Clark JD, **Carvalho B**, Tingle M, Schmelz M, Yeomans DC. Cytokine profile in human skin in response to experimental inflammation, noxious stimulation, and administration of a COX-inhibitor: a microdialysis study. *Pain*. 2008 Sep 30;139(1):15-27.
29. **Carvalho B.** Respiratory Depression after Neuraxial Opioids in the Obstetric Setting: Review *Anesth Analg 2008 Sep;107(3):956-61*
30. Angst MS, Tingle M, Schmelz M, **Carvalho B**, Yeomans DC. Human in-vivo bioassay for the tissue-specific measurement of nociceptive and inflammatory mediators. *J Vis Exp*. 2008 Dec 1;(22).
31. Horstman DJ, Riley ET, **Carvalho B.** A randomized trial of maximum cephalad sensory blockade with single-shot spinal compared with combined spinal-epidural techniques for cesarean delivery. *Anesth Analg 2009;(108):240-5*
32. Halpern S, **Carvalho B.** Patient-Controlled Epidural Analgesia for Labor. Systematic Review *Anesth Analg. 2009 Mar;108(3):921-8.*
33. Coleman L, **Carvalho B,** Lipman S, Schmiesing C, Riley ET. Accidental Intrathecal Sufentanil Overdose During Combined Spinal-Epidural for Labor Analgesia. *Int J Obstet Anesth* 2009;18,78-80
34. **Carvalho B**, Cohen SE, Riley ET, Brummel C, Mercier FJ. Hetastarch co-loading is as effective as pre-loading for the prevention of hypotension following spinal anesthesia for cesarean delivery *Int J Obstet Anesth* 2009 Apr;18(2):150-5.

35. Angst MS, Tingle M, Phillips NG, **Carvalho B**. Determining heat and mechanical pain thresholds in inflamed skin of human subjects. *J Vis Exp*. 2009 Jan 14;(23).
36. Aiono-Le Tagaloa L, Butwick A, **Carvalho B**. A Survey of Anesthetic Practice for Cesarean Delivery. *Anesthesiology Research and Practice* 2009, Article ID 510642
37. **Carvalho B**, Coleman L, Saxena A, Riley ET**.** Analgesic Requirements and Postoperative Recovery After Elective Compared to Unplanned Cesarean Delivery *Int J Obstet Anesth* 2010; 19:10-15.
38. Jonathan TJ, Macario A, **Carvalho B**, Druzin M, El-Sayed YY. Cost-effectiveness of External Cephalic Version for Term Breech Presentation *BMC Pregnancy Childbirth*. 2010; 21:10(1):3. *(Selected to Tufts Medical Center Cost-Effectiveness Analysis registry)*
39. Butwick AJ, **Carvalho B.** Neuraxial Anesthesia in Obstetric Patients receiving Anticoagulant and Antithrombotic Drugs: Review *Int J Obstet Anesth* 2010;19(2):63-72.
40. Butwick AJ, Coleman L, Cohen SE, Riley ET, **Carvalho B.** Minimum effective bolus dose of oxytocin during elective Caesarean delivery. *Br J Anaesth* 2010; 104(3): 338-43.
41. Lipman S, Daniels K, **Carvalho B**, Cohen S, Druzin M. Striking Deficits in the Administration of CPR During Simulated Obstetric Crises *Am J ObGyn* 2010 Apr 22
42. Harkins J, **Carvalho B**, Evers A, Mehta S, Riley ET. Factors Associated With Women Receiving an Epidural For Labor Analgesia *Anesthesiology Research and Practice* 2010, Article ID 356789
43. Landau R, **Carvalho B**, Richebé P, Cardoso M, Lavand'homme P, Granot M, Yarnitsky D. An Experimental Paradigm for the Prediction of Post-Operative Pain. *J Vis Exp*. 2010 Jan 27;(35).
44. **Carvalho B** Clark JD, Qiao Y, Yeomans DC, Angst MS. The Effect of Continuous Wound Infiltration with Bupivacaine on the Local Release of Nociceptive and Inflammatory Mediators Following Cesarean Delivery *Anesth Analg* 2010 Sep 22 *(Cited in lead editorial*)
45. Hu Y, Liang D, Li X, Liu H, Zhang X, Zheng M, Dill D, Shi X, Qiao Y, Yeomans D, **Carvalho B**, Angst M, Clark D, Peltz G. The Role of Interleukin-1 in Wound Biology. Part I: Murine In Silico and In Vitro Experimental Analysis. *Anesth Analg* 2010 Oct 1 (*Cover page and cited in lead editorial*)
46. Hu Y, Liang D, Li X, Liu H, Zhang X, Zheng M, Dill D, Shi X, Qiao Y, Yeomans D, **Carvalho B**, Angst M, Clark D, Peltz G. The Role of IL-1 in Wound Biology Part II: In vivo and Human Translational Studies *Anesth Analg* 2010 Oct 1 (*Cover page and cited in lead editorial*)
47. **Carvalho B**, Aleshi P, Horstman D, Angst M. The effect of a preemptive femoral nerve block on cytokine release and pain in inflamed skin of human volunteers *Reg Anesth Pain Med.* 2010 Nov;35(6):514-9.
48. Butwick AJ, **Carvalho B**, Danials C, Riley ET. Retrospective analysis of anesthetic interventions for obese patients undergoing elective cesarean delivery. J Clin Anesth. 2010 Nov;22(7):519-26
49. Butwick AJ, **Carvalho B.** Anticoagulant and Antithrombotic Drugs in Pregnancy: What Are the Anesthetic Implications For Labor and Cesarean Delivery? *J Perinatology* 2011 Feb;31(2):73-84
50. **Carvalho B,** Drover D, Atkinson L, Riley ET, Collins J. The ED50 and ED95 of Intrathecal Bupivacaine in Morbidly Obese Patients Undergoing Cesarean Delivery. Anesthesiology. 2011;114(3):529-35 (*Cited in lead editorial*)
51. Clavijo C, Hoffman K, Thomas JJ, **Carvalho B**, Chu LF, Drover D, Hammer G, Christians U, Galinkin J. A Sensitive Assay for the Quantification of Morphine and its Active Metabolites in Human Plasma and Dried Blood Spots Using High Performance Liquid Chromatography-Tandem Mass Spectometry. *Anal Bioanal Chem. 2011 May;400(3):715-28.*
52. Dyer RA, Butwick A, **B Carvalho.** Oxytocin for Labor and Cesarean Delivery: Implications for the Anesthesiologist *Current Opinion in Anaesthesiology* June 2011; 24 (3):255–261.
53. Atkinson L, Drover D, **Carvalho B.** The Pharmacokinetic and Pharmacodynamic Effects of Prior Epidural Lidocaine Administration on DepoDur® (extended-release epidural morphine) in Patients Undergoing Cesarean Delivery *Anesth Analg* 2011 Aug;113(2):251-8.
54. Butwick A, Hilton G, Riley ET, **Carvalho B**. Non-invasive measurement of hemoglobin during cesarean hysterectomy: A case series *Int J Obstet Anesth*. 2011 Jul;20(3):240-5.
55. Sultan P, **Carvalho B**. Anesthesia for External Cephalic Version: A Systematic Review *Int J Obstet Anesth* 2011; Oct;20(4):299-306.
56. Sultan P, Gutierrez C, **Carvalho B.** Lead Article: Respiratory Depression Secondary to Neuraxial Morphine: Finding the Right Balance *Drugs 2011 Oct;71(14):1807-19.*

57. Lipman S, Daniels K, Cohen S, **Carvalho B**. Labor room setting compared with the operating room for simulated perimortem cesarean delivery: a randomized controlled trial. *Obstet Gynecol* 2011 Nov;118(5):1090-4
58. Sultan P, **Carvalho B**, Rose BO, Cregg R. Endotracheal tube cuff pressure monitoring: a review of the evidence. *J Perioper Pract.* 2011 Nov;21(11):379-86
59. **Carvalho B**, Drover DR, Ginosar Y, Cohen SE, Riley ET. Intrathecal fentanyl added to bupivacaine and morphine for cesarean delivery may induce a subtle acute opioid tolerance. *Int J Obstet Anesth*. 2012 Jan;21(1):29-34.
60. Butwick A, Hilton G, **Carvalho B**. Non-invasive haemoglobin measurement in patients undergoing elective Caesarean section. Br J Anaesth. 2012 Feb;108(2):271-7.
61. Sultan P, Green C, Riley E, **Carvalho B**. Spinal Anesthesia for Cesarean Delivery in a Parturient with Babesiosis and Lyme Disease Anaesthesia. 2012 Feb;67(2):180-3.
62. Sultan P, Hilton G, Butwick A, **Carvalho B**. Continuous Spinal Anesthesia for Cesarean Hysterectomy and Massive Hemorrhage in a Parturient with Placenta Increta *Can J Anesth* 2012;59(5):473-477
63. Desai AM, **Carvalho B**, Hansen J, Hill J. Ultrasound Guided Popliteal Nerve block in a Patient with Malignant Degeneration of Neurofibromatosis 1 *Case Reports in Anesthesiology* 2012; Article ID 753769
64. Lipman S, **Carvalho B**, Druzin M, Cohen S, Daniels K. Response Times for Emergency Cesarean Delivery: Use of Simulation Drills to Assess and Improve Obstetric Team Performance J Perinatology 2012 Aug 2
65. **Carvalho B**, Clark DJ, Yeomans D, Angst MS. Collecting and Measuring Wound Exudate Biochemical Mediators in Surgical Wounds. *J Vis Exp*. 2012 Oct 20;(68).
66. Wong J, **Carvalho B**, Riley ET. Intrathecal morphine 100 and 200 µg for post-cesarean delivery analgesia: a trade-off between analgesic efficacy and side effects. *Int J Obstet Anesth*. 2013 Jan;22(1):36-41
67. Maxwell BG, El-Sayed YY, Riley ET, **Carvalho B.** Peripartum outcomes and anesthetic management of parturients with moderate to complex congenital heart disease or pulmonary hypertension. *Anaesthesia* 2013;68(1):52-9.
68. Lipman S, Wong JYA, Arafeh J, Cohen SE, **Carvalho B**. Transport Decreases the Quality of Cardiopulmonary Resuscitation During Simulated Maternal: Cardiac Arrest. *Anesth Analg* 2013;116(1):162-7
69. **Carvalho B,** Cohen SE. Open Forum: Measuring the labor pain experience: Delivery still far off! IJOA Int J Obstet Anesth. 2013 Jan;22(1):6-9.
70. **Carvalho B,** Zheng M, Aiono-Le Tagaloa L. Evaluation of Experimental Pain Tests to Predict Labor Pain and Epidural Analgesic Consumption *Br J Anaesthesia* 2013 Apr;110(4):600-6
71. **Carvalho B,** Lemmens H, Ting V, Angst M. The Effects of Continuous Subcutaneous Instillation of Ketorolac and Hydromorphone on Wound Biochemistry in Surgical Wounds following Cesarean Delivery *J Pain* 2013;14(1):48-56.
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73. SOAP 41st Annual Meeting, April 2009, Washington, Poster Presentation: S. Lipman, **B Carvalho**, SE Cohen. The “5-Minute Rule” for Perimortem Cesarean Delivery: Should the Patient be Moved to the Operating Room?
74. SOAP 41st Annual Meeting, April 2009, Washington, Poster Presentation: S Harter, **B Carvalho**, E Riley Porcine Dura Mater Puncture Force as a Function of Spinal Needle Gauge and Type.
75. SOAP 41st Annual Meeting, April 2009, Washington, Poster Presentation: Aiono-Le Tagaloa L, Butwick AJ, **Carvalho B.** A Survey of Anesthetic Practice for Cesarean Delivery
76. ASA Annual Meeting, New Orleans, October 2009, Oral Presentation-Anesthesiology/FAER session: S. Lipman, **B Carvalho**, SE Cohen. The 5-Minute Rule for Perimortem Cesarean Delivery: Should We Move to the Operating Room?
77. ASA Annual Meeting, New Orleans, October 2009, Oral Poster Discussion. **Carvalho B,** Atkinson L, Collins J, Ting V, Harder S, Riley ET. The ED50 and ED95 of Intrathecal Bupivacaine in Morbidly Obese Patients Undergoing Cesarean Delivery
78. ASA Annual Meeting, New Orleans, October 2009, Poster Presentation. P Aleshi, M Angst, M Tingle, D Horstman, **B Carvalho**. The effect of a preemptive femoral nerve block on cytokine release and pain in inflamed skin of human volunteers
79. ASA Annual Meeting, New Orleans, October 2009, Poster Presentation. Butwick AJ, Coleman L, Cohen SE, Riley ET, **Carvalho B**. The Minimum Effective Dose of Oxytocin in Patients Undergoing Elective Cesarean Delivery.
80. ASA Annual Meeting, New Orleans, October 2009, FAER Poster Presentation. Hass C, **Carvalho B**. Analgesic Expectations and Maternal Satisfaction with Labor Analgesia.
81. APS Annual Meeting, Baltimore, May 2010 Poster Presentation: Landau R, Wilson HD, Flint L, Kraft J, **Carvalho B**, Turk DC. Stability of diffuse noxious inhibitory controls in women: within menstrual cycle fluctuations and across menstrual cycle consistency.
82. SOAP 42nd Annual Meeting, April 2010, San Antonio. Best Paper Oral Presentation. Atkinson L, Drover D, Clavijo CF, Ting V, Harter S, **Carvalho B.** The Pharmacokinetic and Pharmacodynamic Effects of Prior Epidural Lidocaine Administration on Extended-Release Epidural Morphine (DepoDur®) in Patients Undergoing Cesarean Delivery
83. SOAP 42nd Annual Meeting, April 2010, San Antonio. Poster Presentation. Rubin P, **Carvalho B,** Riley E. The effect of differential doses of bicarbonate on lidocaine pH and ionization
84. SOAP 42nd Annual Meeting, April 2010, San Antonio. Poster Presentation. Ruehlmann S, Landau R, Kraft J, Flint L, Richebe P, **Carvalho B**. The Menstrual Cycle Does Not Affect Diffuse Noxious Inhibitory Control (DNIC), Temporal Summation or Pain Tolerance

85. SOAP 42nd Annual Meeting, April 2010, San Antonio. Poster Presentation. Landau R, Ruehlmann S, Kraft J, Flint L, **Carvalho B.** Diffuse Noxious Inhibitory Control (DNIC) to evaluate endogenous pain modulation: a longitudinal study in healthy women to test reliability of repeated measures.
86. SOAP 42nd Annual Meeting, April 2010, San Antonio. Poster Presentation. Landau R, Bollag L, Richebe P, **Carvalho B**, Flynt L, Kraft J. A survey to assess the 'Overall Experience of Labor and Delivery' (OELD)
87. ASA Annual Meeting, San Diego, October 2010, Poster Presentation. Landau R, Ruehlmann S, Craft J, Flint L, **Carvalho B**. The menstrual cycle does not affect DNIC, temporal summation or pain tolerance
88. ASA Annual Meeting, San Diego, October 2010, Poster Presentation. Landau R, Wilson H, Ruehlmann S, Craft J, **Carvalho B**. Testing reliability of repeated measures of diffuse noxious inhibitory control (DNIC) in women
89. SOAP 42nd Annual Meeting, April 2011, Las Vegas. Best Paper Oral Presentation. Lipman S, Cohen SE, Daniels K, **Carvalho B**. Perimortem Cesarean Delivery During Simulated Maternal Cardiac Arrest: Labor Room Versus Operating Room
90. SOAP 42nd Annual Meeting, April 2011, Las Vegas. Oral Presentation. G Hilton, **B Carvalho**, AJ Butwick. Study to Assess the Performance of Continuous Non-invasive Hemoglobin Measurement during Cesarean Delivery
91. SOAP 42nd Annual Meeting, April 2011, Las Vegas. Oral Presentation. R Landau, C Ortner, SK Liu, JL Blouin, S Harder, **B Carvalho**. Effect of OPRM1 and COMT Genotypes on Response to Intravenous Followed by Intrathecal Fentanyl During Labor Analgesia
92. SOAP 42nd Annual Meeting, April 2011, Las Vegas. Poster Presentation. G Hilton, **B Carvalho**, ET Riley, AJ Butwick. Non-Invasive Measurement of Hemoglobin During Cesarean Delivery in Patients with Abnormal Placentation: A Case Series
93. ASRA Spring Meeting, May 2011, Las Vegas. Poster Presentation. JJ Desai, **B Carvalho**, J Hansen, JN Hill. Ultrasound Guided Popliteal Nerve block in a Patient with Malignant Degeneration of Neurofibromatosis
94. Western Anesthesia Resident Conference (WARC) May 2011. Oral Presentation. P Sultan, J Tan, A Macario, Y El-Sayed, **B Carvalho**. A Cost-Analysis of Neuraxial Anesthesia to Facilitate External Cephalic Version for Breech Fetal Presentation
95. ASA Annual Meeting, Chicago, October 2011, Oral Poster Discussion. **Carvalho B**, Daniels K, Arafeh, J, Cohen S, Lipman S. Transport consistently delays Perimortem Cesarean: A simulation based randomized controlled trial of Labor Room vs. OR
96. ASA Annual Meeting, Chicago, October 2011, Poster Presentation. Hilton G, **Carvalho B**, Butwick AJ. Study to Assess the Performance of Continuous Non-invasive Hemoglobin Measurement during Cesarean Delivery
97. ASA Annual Meeting, Chicago, October 2011, FAER Poster Presentation. Wong J, Riley E, **Carvalho B**. Analgesic efficacy of 100 mcg compared to 200 mcg intrathecal morphine after cesarean delivery
98. ASA Annual Meeting, Chicago, October 2011, FAER Poster Presentation. Wen L, Hilton G, **Carvalho B**. The Impact of Breastfeeding on Maternal Pain After Vaginal Delivery
99. American College of Physicians (ACP) Annual Meeting, West Lebanon, October 2011: Wong J, Lipman S, Cohen SE, Arafeh J, **Carvalho B**. The quality of CPR deteriorates during transport in simulated maternal arrests
100. American Society of Regional Anesthesia (ASRA) 37th Annual Meeting, San Diego, March 2012. Poster Presentation: Yun R, Kim ET, Mariano ER, **Carvalho B.** Variations in Echogenicity of Peripheral Nerve Block Catheters Demonstrated in a Porcine Animal Model
101. 15th World Congress of Anaesthesiologists Meeting, Buenos Aires, Argentina, March 2012. Poster Presentation: **Carvalho B,** Wong J, Cohen SE, Arafeh J, Lipman S. Deterioration in Quality of CPR During Transport in Simulated Maternal Arrests
102. 15th World Congress of Anaesthesiologists Meeting, Buenos Aires, Argentina. March 2012. Poster Presentation: Yun R, Kim ET, Mariano ER, **Carvalho B.** Echogenicity of Catheters Used for Ultrasound-Guided Continuous Peripheral Nerve Blocks
103. SOAP 43rd Annual Meeting, April 2012, Monterey. Best Paper: **Carvalho B**, Lemmens H, Ting V, Angst M. Postoperative Subcutaneous Instillation of Ketorolac but not Hydromorphone Reduces Pain,

Analgesic Use and Wound Exudate Concentrations of Interleukin-6 and Interleukin-10 Following Cesarean Delivery

104. SOAP 43rd Annual Meeting, April 2012, Monterey. Oral Presentation Gertie Marx Symposium Sultan P, **Carvalho B**, Wilson H, Landau R. Endogenous pain inhibition does not appear to be the mechanism responsible for pregnancy-induced analgesia
105. SOAP 43rd Annual Meeting, April 2012, Monterey. Oral Presentation: **Carvalho B**, Wong J, Cohen S, Lipman S. Transport from the Labor Room to the Operating Room Significantly Decreases the Quality of CPR During Simulated Maternal Cardiac Arrest: ***Selected for F1000 Posters 2012; 3:394***
106. SOAP 43rd Annual Meeting, April 2012, Monterey. Highlighted Poster Presentation: **Carvalho B**, Harter S, Wang P, Clavijo C, Drover D. Pharmacokinetics of Fentanyl in Pregnant Women versus Non-Pregnant Women.
107. SOAP 43rd Annual Meeting, April 2012, Monterey. Poster Presentation. Murphy C, Sultan P, Halpern S, **Carvalho B**. Ultra-low versus Higher-Concentration Epidural Local Anesthetic Solutions in Labor: A Meta-Analysis of Outcomes
108. SOAP 43rd Annual Meeting, April 2012, Monterey. Poster Presentation and Oral Resident Forum Presentation. Wen L, Hilton G, Astilean M, **Carvalho B**. The impact of labor and delivery on patients depression, post-traumatic stress ratings and pain preferences
109. SOAP 43rd Annual Meeting, April 2012, Monterey. Poster Presentation. Wong J, Riley E, **Carvalho B**. Post-cesarean analgesic efficacy and side effects: A comparison of 100 and 200 mcg of intrathecal morphine
110. SOAP 43rd Annual Meeting, April 2012, Monterey. Poster Presentation. Maxwell B, El-Sayed Y, Riley E, **Carvalho B**. A retrospective cohort analysis of pregnant women with moderate to complex congenital heart disease or pulmonary hypertension.
111. SOAP 43rd Annual Meeting, April 2012, Monterey. Poster Presentation. Mirza F, **Carvalho B**. A Case Series Describing an Important Role for Transversus Abdominis Plane Blocks for Rescue Analgesia After Cesarean Delivery
112. Obstetric Anaesthetists Association of Great Britain (OAA) Annual Scientific Meeting, Liverpool, UK May 2012. Oral presentation: Sultan P, Murphy C, Halpern S, **Carvalho B**. Comparison of ultra-low and higher-dose epidural local anaesthetic solutions in labour: a meta-analysis.
113. Canadian Anesthesiologists' Society Annual Scientific Meeting, Quebec City, Canada, June 2012. Best Paper in Obstetric Anesthesia: Murphy C, Sultan P, Halpern S, **Carvalho B**. Ultra-low compared to higher concentration epidural local anesthetic solutions in labor: A meta-analysis.
114. ASA Annual Meeting, Washington DC, October 2012, FAER Poster Presentation: Lazo T, Butwick A, **Carvalho B**. Multivariate analysis of factors associated with maternal temperature after Cesarean delivery
115. Society for Maternal-Fetal Medicine Annual Meeting, San Francisco February 2013, Poster Presentation: Girsen AI, Greenberg MB, El-Sayed YY, **Carvalho B**, Lyell DJ. Magnesium sulfate exposure and neonatal intensive care unit admission
116. SOAP 44th Annual Meeting, April 2013, San Juan, Puerto Rico. Oral Presentation: Sultan P, Drover D, **Carvalho B**. Pharmacokinetic modeling and placental transfer of cefazolin administered prior to cesarean delivery
117. SOAP 44th Annual Meeting, April 2013, San Juan, Puerto Rico. Poster Presentation: **Carvalho B**, Nathan E, Mirza F, Akbar K, Sia A, Sng BL, Paech M. Methylnaltrexone to Prevent Intrathecal Morphine-Induced Pruritus After Cesarean Delivery: The MEAN ITCH trial.
118. SOAP 44th Annual Meeting, April 2013, San Juan, Puerto Rico. Poster Presentation: Butwick A, Lazo T, **Carvalho B**. Multivariate Analysis of Factors Associated with Maternal Temperature After Cesarean Delivery.
119. SOAP 44th Annual Meeting, April 2013, San Juan, Puerto Rico. Poster Presentation: Butwick A, **Carvalho B**, El-Sayed E. Risk Factors for Severe Obstetric Morbidity in Patients with Uterine Atony undergoing Cesarean Delivery
120. SOAP 44th Annual Meeting, April 2013, San Juan, Puerto Rico. Poster Presentation: Wen L, Hilton G, **Carvalho B**. The Impact of Breastfeeding on Postpartum Pain After Vaginal and Cesarean Delivery

121. SOAP 44th Annual Meeting, April 2013, San Juan, Puerto Rico. Poster Presentation: Hilton G, Daniels K, **Carvalho B.** Simulation Study Assessing Knowledge of Preeclampsia/Eclampsia Management in a Tertiary Referral Center

Invited Presentations: 93 (64 regional/national, 23 international, 8 visiting professorships)

Robert Abraham Endowned Annual Lecture, Johns Hopkins University, December 2014

Obstetric Anaesthetists Association (OAA) Annual Meeting, Dublin Ireland, UK, May 2014

Society for Obstetric Anesthesia and Perinatology Annual Meeting, Toronto, Canada, April 2014
Transthoracic Echocardiography for the Obstetric Anesthesiologist Workshop

Sol Shnider Obsteric Anesthesia Meeting, San Francisco, California, March 2014
Speaker: Non-obstetric Surgery in the Obstetric Patient
Moderator: Clinical Optimization and Resuscitation
Speaker: Postoperative Analgesia
Speaker: Ultrasound: An Essential Tool for the Obstetric Anesthesia Provider

American Society of Anesthesiologists (ASA) Scientific Meeting, San Francisco, October 2013
Refresher Course Speaker: Strategies to Optimize Post-Cesarean Delivery Analgesia
Panel Speaker and Moderator: Role of Ultrasound Guidance and Echocardiography in Obstetric Anesthesia

17th Annual Alexandria Anaesthesia and Intensive Care Conference, Alexandrina, Egypt, October 2013
1. New Techniques to Provide Ideal Cesarean Anesthesia and Analgesia
2. Strategies to Optimize Labor Analgesia
3. Morbid Obesity in Pregnancy: Anesthetic Challenges and Management Strategies
4. Ultrasound for the Obstetric Anesthesiologist

OB Resident Lecture Series 2013: Program Coordinator and Speaker
Labor analgesia: Why we do what we do

Stanford University Resident's Refresher Course, Stanford, June 2013
Key Obstetric Anesthesia Topics for the Boards

International Anesthesia Research Society (IARS) Clinical and Scientific Conference, San Diego, May 2013. **SOAP Panel Lecture:** Analgesics in the Breast Feeding Parturient

American Society of Regional Anesthesia and Pain Medicine (ASRA) 38th Annual Meeting, Boston, May 2013.
Lecture: Update on Labor and Post-Cesarean Analgesia
PBLD: Failed Regional Anesthetic For Cesarean Section: What Do I Do Now?
Lecture: Acute Pain Medicine in Pregnant Patients
Workshop Instructor: Truncal Blocks
PBLD: Management of Post-Dural Puncture Headache

Society for Obstetric Anesthesia and Perinatology Annual Meeting, San Juan, Puerto Rico, April 2013
Transthoracic Echocardiography For The Obstetric Anesthesiologist Workshop

Santa Joana Hospital Obstetric Anesthesia Meeting, Sao Paulo, Brazil, April 2013.
Anesthetic Management Strategies for the Morbidly Obese Pregnancy Patient
Ultrasound for the Obstetric Anesthesiologist
Post-Cesarean Analgesia in the Breast Feeding Parturient

Sol Shnider Obsteric Anesthesia Meeting, San Francisco, California, March 2013
Neuraxial Techniques and Dosages to Provide Optimum Anesthesia for Cesarean Delivery
Post-operative Pain Management following Cesarean Delivery: State of the Art
CPR in Pregnancy

Stanford University Resident's Regional Anesthesia Workshop, Stanford, March 2013

Visiting Professor and Presentation, Perth, Australia, February 2013
Strategies to optimize cesarean delivery analgesia

World Congress of Regional Anaesthesia and Pain Therapy, Sydney, Australia February 2013
Are we doing a good job in the management of post-CS pain?

Combined OASAO-SOAP Symposium, Sydney, Australia February 2013
Post CS and post VD analgesia in the breast feeding parturient

Stanford University Obstetric Department Grand Rounds, January 2013
Strategies to optimize cesarean analgesia

International Anesthesia Research Society (IARS) OpenAnesthesia.org Ask the Experts, January 2013. Various topics covering Obstetric Anesthesia

Risk Management Symposium, John Muir Hospital Walnut Creek Campus, Walnut Creek, California, November 2012
Keynote Speaker: Labor and Cesarean Delivery Analgesia

California Society of Anesthesiologists' Fall Seminar, November 2012, Kona, Hawaii

- Strategies to optimize labor analgesia, vaginal delivery, and fetal outcomes
- Morbid obesity in pregnancy: anesthetic challenges and management strategies
- Prevention and treatment of spinal-induced hypotension during Cesarean delivery
- Anesthesia during pregnancy: optimizing maternal and fetal well-being

Congress on Anesthesia in Obstetrics, Ho Chi Minh City, Vietman, October, 2012
Workshop: TAP block for postoperative pain
Workshop: Ultrasound-guided Neuraxial Placement
Lecture: Labor Analgesia: Strategies to Optimize Maternal and Fetus Outcomes
Lecture: Prevention and Managing Failed Blocks for Cesarean Delivery
Lecture: Resuscitation of the Pregnant Patient

KK Hospital Obstetric Symposium, Singapore, September 2012
Plenary Lecture: New techniques in anaesthesia for caesarean section
Lecture: Morbid obesity in Pregnancy: anaesthetic challenges and dilemmas
Lecture: Managing the pregnant woman with cardiac disease
Free Communication Session: Accidental dural puncture
Pro-Con debate: All Obese patients in labour should always receive an epidural catheter

National Anaesthesia Training Program for Advanced Specialist Training, Singapore, September 2012
Lecture: Non-obstetric Surgery and Anesthesia During Pregnancy

Faculty Development Retreat, VA Palo Alto Health Care System, Palo Alto, July 2012
Defining a "Successful" Academic Career and Achieving It: Starting a Research Career

Stanford University Resident's Refresher Course, Stanford, June 2012
Key Obstetric Anesthesia Topics for the Boards

15th World Congress of Anaesthesiologists, Buenos Aires, Argentina, March 2012
Optimizing Analgesia After C-Section

Sol Shnider Obsteric Anesthesia Meeting, San Francisco, California, March 2012
TAP Block and Lumbar Spine Ultrasound: Clinical Pearls
Failed Epidural For Unplanned Cesarean: Spinal Anesthetic (Pro/Con Debate)

New Mexico Society of Anesthesiologists (NMSA) Annual Education Meeting, Albuquerque, New Mexico, February 2012
Keynote Lecture: New Options to Optimize Labor and Cesarean Analgesia
PBLD: Failed Cesarean Blocks

Visiting Professor and Presentation (TAP Block and Lumbar Spine Ultrasound), Groote Schuur Hospital, Cape Town, South Africa, December 2011

Stanford University Resident's Regional Anesthesia Workshop, Stanford, November 2011

Stanford University CME Regional Anesthesia Workshop, Stanford, November 2011

CME meeting, Laguna Beach California, Sept 2011
- Strategies to Optimize Post-Cesarean Delivery Analgesia
- An Evidence-Based Approach to Fluids and Vasopressors to Prevent and Treat Cesarean Delivery Spinal Hypotension
- Non-obstetric Surgery and Anesthesia During Pregnancy

Changing Practice of Anesthesia Conference, San Francisco, September 2011:
Multimodal Analgesic Options to Minimize Post-Cesarean Pain

Grand Rounds Presentation, Stanford University, Stanford, July 2011
Prevention and Management of High Spinal Block for Cesarean Delivery

Combined Scientific Meeting of the Australia and New Zealand College of Anaesthetists (ANZCA) and Hong Kong College of Anaesthesiology, Hong Kong, China, May 2011
Strategies to Optimize Labour Analgesia

Society for Obstetric Anesthesia and Perinatology (SOAP) Annual Scientific Meeting, Lake Las Vegas, Nevada, May, 2011: Failed Epidural For Unplanned Cesarean: Spinal Anesthetic (Pro/Con Debate)

Sol Shnider Obsteric Anesthesia Meeting, San Francisco, March 2011
- Predicting Pain and Analgesic Requirements Before Surgery
- Obstetric Hemorrhage Panel: Management of Antepartum Hemorrhage

Visiting Professor: University of British Columbia, Vancouver, Canada, January 2011

California Society of Anesthesiologists' Fall Seminar, October 2010, Kona, Hawaii
- Labor Analgesia: Strategies to Optimize Maternal and Fetus Outcomes
- Non-obstetric surgery and anesthesia during pregnancy
- Providing the Ideal Cesarean Delivery Anesthetic
- Managing the pregnant patient with cardiac disease

American Society of Anesthesiologists (ASA) Scientific Meeting, San Diego, October 2010
Point-Counterpoint Debate: Phenylephrine should replace ephedrine for the routine treatment of post-spinal hypotension in obstetric anesthesia

Australian Society of Anaesthetists, Melbourne, Australia, October 2010
- New Options to Minimize Post-Cesarean Pain
- Spinal Hypotension Prevention During Cesarean Delivery: An evidence-based Approach
- Predicting the mother and baby [Plenary Lecture]

Stanford University Resident's Refresher Course, Stanford, June 2010
Obstetric Anesthesia Key Points

Society for Obstetric Anesthesia and Perinatology (SOAP) Annual Scientific Meeting, San Antonio Texas, May, 2010: Pearls and Pitfalls Session; Resident and Medical Student Forum (moderator)

Kaiser Permanente Annual Anesthesiology Symposium, San Francisco, April 2010
- Strategies to Optimize Analgesia for Labor

Visiting Professor: University of New Mexico, Albuquerque, March 2010

Sol Shnider Obsteric Anesthesia Meeting, San Francisco, March 2010
- Spinal Anesthesia for Cesarean Delivery: Evidence Based Prevention of Hypotension
- Postoperative Analgesia: New Options
- Respiratory Depression after Neuraxial Opioids

Invited Presentation: Combined Anaesthesia and Obstetric Academic Meeting, Groote Schuur Hospital, Cape Town, South Africa, February 2010
- Optimizing Post-Cesarean Analgesia

Visiting Professor: Al Wasl Hospital, Dubai, UAE, February 2010

Annual Wintersymposium Leuven, Belgium January 2010
- Analgesia for Labor: Strategies to Optimize Maternal and Fetus Outcomes
- Post-Cesarean Section Analgesia

Visiting Professor: Beth Israel Deaconess Medical Center, Boston, December 2009

Invited Presentation: Brigham and Women's Hospital, Boston, December 2009
The role of ultrasound in obstetric anesthesia

15th Annual Advances in Physiology and Pharmacology in Anesthesia and Critical Care
Wake Forest University School of Medicine, Winston-Salem, NC, November 2009
- Evidence-based Approach to the Prevention of Spinal Hypotension During Cesarean Delivery
- Optimizing Labor Analgesia with Patient-Controlled Epidural Analgesia

California Society of Anesthesiologists' Fall Seminar, October 2009, Kauai, Hawaii
- Non-obstetric surgery and anesthesia during pregnancy
- New options to optimize labor and cesarean delivery analgesia
- Prevention and treatment of spinal hypotension during cesarean delivery
- Managing the pregnant patient with cardiac disease

American Society of Anesthesiologists (ASA) Annual Scientific Meeting, New Orleans, October 2009: Poster Discussion Moderator

Stanford University Resident's Regional Anesthesia Workshop, Stanford, October 2009

20th Annual UC Davis Anesthesiology Update, Napa, CA, August 2009
- Preventing Hypotension During Cesarean Delivery Under Spinal Anesthesia
- Failed Epidural Top-Up for Cesarean Delivery in a Patient with an Existing Labor Epidural

Visiting Professor: UC Davis, California, May 2009

Society for Obstetric Anesthesia and Perinatology (SOAP) Annual Scientific Meeting, Washington DC, May, 2009: Minimizing Risks with Neuraxial Techniques: Respiratory Depression Following Neuraxial Opioids

Visiting Professor: University of Washington Medical Center, Seattle, April 2009

Visiting Professor: University of California San Diego (UCSD), March 2009

St. Rose Hospital Grand Rounds, Hayward, California, March 2009
Pain Management for Labor and Delivery in the 21st Century

Obstetric Anaesthetists Association (OAA) 3 Day Course, London, UK, November 2008
- Patient-Controlled Epidural Analgesia (PCEA) for Labour Analgesia
- Preventing Hypotension During Spinal Anaesthesia
- Optimising Post Caesarean Section Analgesia

American Society of Anesthesiologists (ASA) Annual Scientific Meeting, Orlando, October 2008: Poster Discussion Moderator

Stanford University Resident's Regional Anesthesia Workshop, Stanford, September 2008

First National Conference on Obstetric Anesthesia (Association of Obstetric Anesthesiologists), Chennai, India, September 2008
- Cardiac Disease in the pregnant patient
- High Dose Vs Low Dose Bupivacaine for LSCS

Californian Society of Anesthesiology (CSA) Annual Meeting, Los Angeles, May 2008
- Advances in Obstetric Anesthesia and Analgesia
- Non-obstetric surgery during pregnancy

Society for Obstetric Anesthesia and Perinatology (SOAP) Annual Scientific Meeting, Chicago, May, 2008: General anesthesia is acceptable for elective cesarean section (Moderator)

International Anesthesia Research Society (IARS) Clinical and Scientific Conference, San Francisco, March 2008: SOAP Panel: Optimizing Post Cesarean Delivery Analgesia

Texas Anesthesia Conference for Obstetrics (TACO) Meeting, Houston, Texas, March 2008
- Is Fluid Preloading Necessary Prior to Neuraxial Anesthesia
- Optimizing Post Cesarean Delivery Analgesia

World Congress of Anaesthesia (WCA) Meeting, Cape Town, South Africa, March 2008
- Post Cesarean Delivery Analgesia

WCA Satellite Meeting: Obstetric Anaesthetists' Association (OAA) Refresher Course in Obstetric Anaesthesia, Cape Town, South Africa, March 2008

- Patient controlled epidural analgesia (PCEA) - The gold standard?

The North of Anesthesia Meeting, Porto, Portugal, November 2007

- Post-Cesarean Analgesia: New Options to Optimize Pain Management
- Patient-Controlled Epidural Analgesia for Labor Analgesia: Shouldn't Everyone Use It?

American Society of Anesthesiologists (ASA) Annual Scientific Meeting, San Francisco, October 2007: SOAP Breakfast Panel: Obstetric Anesthesia: Lessons Learned From the Past

Stanford University Resident's Regional Anesthesia Workshop, Stanford, October 2007

Womens' Health Medical Forum, Stanford University, August 2007
Pain Management for Labor and Delivery in the 21st Century

Canadian Anesthesiologists' Society Annual Meeting, Calgary, Canada, June 2007

- Optimizing Post Cesarean Delivery Analgesia
- PCEA for Labor Analgesia: Pro vs. Con Debate
- Cardiac Disease in the Pregnant Patient

Stanford University Resident's Refresher Course, Stanford, June 2007
Obstetric Anesthesia Hot Topics

Society for Obstetric Anesthesia and Perinatology (SOAP) Annual Scientific Meeting, Banff, May 2007: "Breakfast with the Experts" Case Discussion

American Society of Regional Anesthesia and Pain Medicine (ASRA) 32nd Annual Meeting and Workshops, Vancouver, Canada, April, 2007

- Advances in Obstetric Anesthesia and Analgesia
- Choice of Neuraxial Anesthesia and Local Anesthetics in Parturient Undergoing Stat C-Section

The Sol Shnider Obstetrical Anesthesia Meeting, San Francisco, March 2007.

- New Options for Post Cesarean Delivery Analgesia
- PCEA: The Time Has Come

Stanford University / MCW Anesthesia Update Meeting, Colorado, March 2007

- New options to optimize postcesarean analgesia
- Patient-controlled epidural analgesia for labor analgesia: Good medicine or good marketing?

Santa Teresa Hospital, San Jose, California, November 2006.

- Grand Rounds: Advances in Labor and Cesarean Analgesia

American Society of Anesthesiologists (ASA) Annual Scientific Meeting, Chicago, October 2006

- Peripartum cardiomyopathy and HIV in the pregnant patient (Clinical Forum Panel)

Joint Society for Obstetric Anesthesia and Perinatology (SOAP) and Obstetric Anaesthetists Association (OAA) Summer Update on Obstetric Anesthesia Meeting, Trinity College, Dublin, Ireland, August 2006.

- Post-Cesarean Analgesia: Making a choice

Society for Obstetric Anesthesia and Perinatology (SOAP) Annual Scientific Meeting, Miami, April 2006

- Cardiac disease in the pregnant patient (Expert panel on pregnancy and coexisting diseases)

International Anesthesia Research Society (IARS) Clinical and Scientific Conference, San Francisco, March 2006

- Non-obstetric surgery during pregnancy (review course lecture)
- SOAP session: Panel on the management of high risk patients in obstetrics

Santa Teresa Hospital, San Jose, California, March 2006.

- Grand Rounds: Non-obstetric surgery during pregnancy

Stanford University Resident's Regional Anesthesia Workshop, Stanford, October 2005

Santa Joana Hospital Obstetric Anesthesia Meeting, Sao Paulo, Brazil April 2005.

- Is there a place for remifentanil in current obstetric anesthesia?
- Ultra-low PCEA for Labor Analgesia: Good medicine, good marketing or both?
- New options in the management of post-cesarean pain

Texas Anesthesia Conference for Obstetrics (TACO) Meeting, Houston, Texas, March 2005

- Long-acting neuraxial opioids for labor and post-cesarean analgesia

Stanford University Resident's Regional Anesthesia Workshop, Stanford, October 2004

Stanford University Resident's Refresher Course, Stanford, June 2004

Society for Obstetric Anesthesia and Perinatology (SOAP) Annual Scientific Meeting, Florida, May 2004: "Breakfast with the Experts" Case Discussion

The Sol Shnider Obstetrical Anesthesia Meeting, San Francisco, March 2004.

- Spinal Cocktails for Cesarean Section: Which Drugs and How Much?
- Post Cesarean Section Analgesia: Breastfeeding Considerations

Texas Anesthesia Conference for Obstetrics (TACO) Meeting, Houston, Texas, February 2004.

- Spinal Cocktails for Cesarean Section: Which Drugs and How Much?
- Systemic Opioids: Is There a Place for Remifentanil PCA in Current Obstetric Practice?
- Ultra-low PCEA for Labor Analgesia
- New Options: Management of Post Cesarean Pain

(Revised September 15, 2013)