

**Carlo Pancaro, MD**  
**Clinical Professor of Anesthesiology**  
**Clinical Professor of Obstetrics and Gynecology**  
**1500 East Medical Center Drive SPC 5278**  
**Ann Arbor, MI 48109-5278**  
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## **Education and Training**

### **Education**

10/1989-03/1996 MD, Facolta' di Medicina e Chirurgia "La Sapienza", Roma, Italy

### **Postdoctoral Training**

04/1996-12/1996 Clinical Fellow, Cardiac Anesthesia & ICU, Hesperia Hospital, Modena, Italy  
01/1997-12/2000 Residency, Anesthesiology & ICU, Perugia University Hospital, Perugia, Italy  
09/2003-06/2004 Residency, Anesthesiology, Harvard Medical School, Brigham & Women's Hospital, Boston, MA  
07/2004-06/2005 Internship, Internal Medicine, Metro West Medical Center, Framingham, MA  
07/2005-09/2007 Residency, Anesthesiology, Harvard Medical School, Brigham & Women's Hospital, Boston, MA  
10/2007-09/2008 Clinical Fellow, Obstetric Anesthesiology, Harvard Medical School, Brigham & Women's Hospital, Boston, MA

## **Certification And Licensure**

### **Certification**

01/2000-Present Italy, Board Certified in Anesthesiology and ICU  
01/2002-Present Germany, Board Certified in Anesthesiology and ICU  
01/2003-Present Certificate, Educational Commission for Foreign Medical Graduates  
09/2008-12/2028 American Board of Anesthesiology, Anesthesiology  
01/2012-Present The Netherlands, Board Certified in Anesthesiology

### **Licensure**

01/2025 Michigan, Medical License  
01/2025 Michigan, Controlled Substance  
02/2023-03/2026 DEA License

## **Work Experience**

### **Academic Appointment**

10/2007-09/2008 Instructor, Department of Anesthesiology, Brigham & Women's Hospital, Harvard University, Boston  
10/2008-07/2015 Assistant Professor, Department of Anesthesiology, Tufts Medical Center, Boston  
09/2015-08/2023 Clinical Associate Professor, Department of Anesthesiology, University of Michigan, Ann Arbor. MI

08/2016-08/2023	Clinical Associate Professor, Department of Obstetrics and Gynecology, University of Michigan, Ann Arbor, MI
09/2023-Present	Clinical Professor, Department of Anesthesiology, University of Michigan, Ann Arbor, MI
09/2023-Present	Clinical Professor, Department of Obstetrics and Gynecology, University of Michigan, Ann Arbor, MI

### **Administrative Appointment**

09/2012-07/2013	Director of Obstetric Anesthesiology, Academisch Medisch Centrum, University of Amsterdam, Amsterdam
11/2015-05/2020	Director of Obstetric Anesthesiology, Department of Anesthesiology, University of Michigan, Ann Arbor
06/2020-09/2021	Director of Obstetric Anesthesiology Research, Department of Anesthesiology, University of Michigan, Ann Arbor
09/2020-08/2021	Co-Director of Obstetric Anesthesiology (Leave of absence from the University of Michigan), University Hospital, Universitätsmedizin, Göttingen

### **Clinical Appointments**

01/2002-04/2002	Cardiac Anesthesiologist, Sant' Anna Hospital, Catanzaro
05/2002-05/2003	Cardiac Anesthesiologist, Kerckhoff Klinik Herz Zentrum, Bad Nauheim
06/2003-08/2003	Cardiac Anesthesiologist, San Gaudenzio Hospital, Novara
09/2012-07/2013	Visiting Clinical Anesthesiologist (Leave of absence from Tufts), Academisch Medisch Centrum, University of Amsterdam, Amsterdam
09/2020-08/2021	Anesthesiologist (Leave of absence from the University of Michigan), University Hospital, Universitätsmedizin, Göttingen

### **Research Interests**

- Obstetric anesthesiology
- Developmental neuroscience

### **Clinical Interests**

- Obstetric anesthesiology

### **Clinical Track Scholarly Contribution**

#### **Clinician-Individualized**

My scholarly contributions have focused on finding solutions to improve safety during general and more recently have converged toward decreasing complications during regional anesthesia. I have published broadly about the impact of non-invasive treatments for anesthesia induced-hypotension, assessment of safe lumbar puncture sites and clinical pharmacological studies on the safety of anesthetic gases when administered during pregnancy. As a result, I have been invited to give lectures worldwide and was awarded the Society of Obstetric Anesthesiology and Perinatology Gertie Marx Award in 2015. Of late, I have concentrated on applying my skills to the clinical focus of my career, obstetric anesthesiology. I have published about mechanism of fever during labor, effects of intrapartum fever in the offspring and have developed a national reputation for being one of the leading scholars in this field.

## Grants

### Past Grants

*Newborn anatomic and functional consequences of a rat model of non-infectious maternal inflammatory fever:*

PI

Society for Obstetric Anesthes

01/2016 - 12/2017

\$97,277

## Honors and Awards

### International

2014 Best Abstract Oral Presentation, Society for Obstetric Anesthesia and Perinatology Annual Meeting, Toronto, Canada

### National

2015 Gertie Marx Award, Society for Obstetric Anesthesia and Perinatology Annual Meeting, Colorado Spring, CO

2016 Best Abstract Oral Presentation, Society for Obstetric Anesthesiology and Perinatology Annual Meeting, Boston, MA

### Institutional

2011 Outstanding Anesthesiology Instructor of the Year, Tufts School of Medicine, Boston, MA

2014 Outstanding Anesthesiology Instructor of the Year, Tufts School of Medicine, Boston, MA

## Teaching

### **Mentorship**

#### Resident

01/2009-01/2012 Houman Amirfarzan, Tufts Medical School, Boston, MA

01/2009-01/2012 Alya Ali, Tufts Medical School, Boston, MA

01/2009-01/2012 John Adam Reich, Tufts Medical School, Boston, MA

01/2010-01/2013 Viviane Nasr, Tufts Medical School, Boston, MA

01/2010-01/2013 Masilo Grant, Tufts Medical School, Boston, MA

01/2012-01/2013 Amdi Sabeti, Tufts Medical School, Boston, MA

01/2012-01/2013 Niek Sperna Weiland, University of Amsterdam, The Netherlands

01/2017-01/2020 Allen Haddad, University of Michigan, Ann Arbor, MI

01/2020-01/2021 Fabian Folker Heinold, University of Göttingen, Germany

10/2022-10/2022 Brian Waldman, MD, CA-3, University of Michigan, Ann Arbor, MI, Department of Anesthesiology, M&M Conference - A Tale of "Twin" Focal Placenta Accretas

#### Undergraduate Student

01/2017-01/2018 Andrew Ciciello, Thesis Advisor, Biomedical Student Senior Research Project (over the course of the academic year, we held 1-3 meetings every month during the thesis preparation). University of Michigan, Ann Arbor, MI

01/2017-01/2018	Yoani Herrera, Thesis Advisor, Biomedical Student Senior Research Project (over the course of the academic year, we held 1-3 meetings every month during the thesis preparation). University of Michigan, Ann Arbor, MI
01/2017-01/2018	Catrina Letterman, Thesis Advisor, Biomedical Student Senior Research Project (over the course of the academic year, we held 1-3 meetings every month during the thesis preparation). University of Michigan, Ann Arbor, MI
01/2017-01/2018	Oran Lieberman, Thesis Advisor, Biomedical Student Senior Research Project (over the course of the academic year, we held 1-3 meetings every month during the thesis preparation). University of Michigan, Ann Arbor, MI
01/2017-01/2018	Jacob Lutz, Thesis Advisor, Biomedical Student Senior Research Project (over the course of the academic year, we held 1-3 meetings every month during the thesis preparation). University of Michigan, Ann Arbor, MI
01/2017-01/2018	Marissa Maniaci, Thesis Advisor, Biomedical Student Senior Research Project (over the course of the academic year, we held 1-3 meetings every month during the thesis preparation). University of Michigan, Ann Arbor, MI
01/2017-01/2018	Kathryn Mirandette, Thesis Advisor, Biomedical Student Senior Research Project (over the course of the academic year, we held 1-3 meetings every month during the thesis preparation). University of Michigan, Ann Arbor, MI
01/2017-01/2018	Mac Morris, Thesis Advisor, Biomedical Student Senior Research Project (over the course of the academic year, we held 1-3 meetings every month during the thesis preparation). University of Michigan, Ann Arbor, MI
01/2017-01/2018	Stephen Redding, Thesis Advisor, Biomedical Student Senior Research Project (over the course of the academic year, we held 1-3 meetings every month during the thesis preparation). University of Michigan, Ann Arbor, MI
01/2017-01/2018	Catherine Rojas, Thesis Advisor, Biomedical Student Senior Research Project (over the course of the academic year, we held 1-3 meetings every month during the thesis preparation). University of Michigan, Ann Arbor, MI

## **Teaching Activity**

### **International**

01/2016-01/2016	(1) Postpartum Hemorrhage, (2) Amniotic Fluid Embolism, 19th Annual Practical Updates in Anesthesiology, Department of Anesthesiology, University of Michigan, Puerto Vallarta, Mexico
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### **Institutional**

01/2007-01/2008	Anesthesiology Resident Lecture: Obstetric Anesthesiology, Harvard Medical School, Boston, MA
01/2008-01/2015	Anesthesiology Resident Lecture: What's New in Obstetric Anesthesiology, Tufts Medical Center, Tufts University School of Medicine. Boston, MA
01/2009-01/2009	Combined Grand Rounds, Obstetric and Anesthesiology: What's New in Obstetric Anesthesia, Tufts Medical Center, Tufts University School of Medicine, Boston, MA
01/2009-01/2015	Maternal-Fetal Medicine Fellow Lecturer: Obstetric Anesthesiology, Tufts Medical Center, Tufts University School of Medicine, Boston, MA
01/2012-01/2012	Anesthetic Management of the Morbidly Obese Pregnant Patient, 35th Annual Anesthesia Symposium, Bay State Medical Center, Tufts University School of Medicine, Springfield, MA
01/2012-01/2012	The Use of Tranexamic Acid during Post-Partum Hemorrhage, Department of Anesthesiology, Universiteit van Amsterdam, Academisch Medisch Centrum, Amsterdam, The Netherlands

01/2012-01/2013	Anesthesiology Resident Lecture: Obstetric Anesthesiology, University of Amsterdam, The Netherlands
01/2015-Present	Fellow Lecture: Tocolytic Therapy, University of Michigan, Ann Arbor, MI
01/2016-Present	Fellow Lecture: Amniotic Fluid Embolism, University of Michigan, Ann Arbor, MI
01/2016-Present	Fellow Lecture: Labor Pain: Pain Pathways, Mechanisms, Treatment Modalities, University of Michigan, Ann Arbor, MI
01/2016-Present	Fellow Lecture: Research Funding Procurement, University of Michigan, Ann Arbor, MI
01/2017-01/2017	Obstetric Hemorrhage, 36th Robert B. Sweet, MD Memorial Conference, Department of Anesthesiology, University of Michigan, Ann Arbor, MI

## **Memberships in Professional Societies**

2001 - Present	American Society of Anesthesiologists (ASA)
2003 - Present	International Anesthesia Research Society (IARS)
2012 - Present	European Society of Anaesthesiology (ESA)
2014 - Present	Society for Obstetric Anesthesia and Perinatology (SOAP)
2016 - Present	Michigan Society of Anesthesiologists (MSA)

## **Committee/Service**

### **National**

2019 - Present	Multicenter Perioperative National Outcomes Group, University of Michigan, Ann Arbor, MI, Member
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### **Departmental**

2015 - Present	Clinical Competency Committee, Obstetric Anesthesiology Fellowship, University of Michigan, Ann Arbor, MI, Member
2015 - Present	Program Evaluation Committee, Obstetric Anesthesiology Fellowship, University of Michigan, Ann Arbor, MI, Member

### **Institutional**

2015 - Present	Perinatal Joint Practice Committee, University of Michigan, Ann Arbor, MI, Member
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## **Scholarly Activities**

### **Presentations**

#### **Visiting Professorship**

##### **Speaker**

1. Obstetric Anesthesia Tips and Tricks, Grand Rounds for faculty development retreat, Brown University, Department of Anesthesiology, 04/2023, Providence, RI

#### **Extramural Invited Presentation**

##### **Speaker**

1. Kids Having Kids: Anesthetic Management of Pregnant Pediatric Patients Undergoing Non-Obstetric Surgery, Grand Rounds, Children's Hospital, Harvard Medical School, 09/2013, Boston, MA
2. (1) Obstetric Anesthesia Clinical Forum, (2) Modern Day Neuraxial Analgesia for Labor: Current Advances, (3) Do Labor Epidurals Cause Fever?, 5th World Anesthesia Convention Networking Conference, 05/2014, Vienna, Austria

3. Recent Advances in Labor Analgesia, XI Annual Puerto Rico Society of Anesthesiologists Convention, 11/2014, San Juan, Puerto Rico
4. (1) Neuraxial Analgesia and Maternal Fever - Obstetric Anesthesia Refresher Course, (2) Pro-Con Debate: Remifentanyl Prior to Delivery. Should It Be Used in All Patients Undergoing for C-Section Under General Anesthesia? Pro: Marc van de Velde, Con: Carlo Pancaro, 35th Annual European Society Regional Anesthesia Congress, 09/2016, Maastricht, The Netherlands
5. (1) Epidural Analgesia in the Parturient with Fever, (2) RA and Obstetiy - The Obese Pregnant, (3) Emergencies in RA and Obstetrics, (4) Obstetric Anesthesia Update: 5 Things You Always Wanted to Know About OB Anesthesia, XXV CAR/ESRA Annual Congress, 01/2017, Porto, Portugal
6. (1) Epidural Fever - Decode the Myths, (2) Amniotic Fluid Embolism, 12th National Conference of Association of Obstetric Anesthesiologists of India, 09/2019, Chennai, India
7. Postpartum Hemorrhage and Morbidly Adherent Placenta, Grand Rounds, St. Joseph Mercy Hospital, 12/2019, Ann Arbor, MI
8. Emergent Anesthesia: Tricks of the Trade. Lecture to last year medical students, University of Göttingen, 03/2021, Göttingen, Germany
9. (1) Norepinephrine in Obstetrics, (2) Safety of Peripheral Norepinephrine in Clinical Practice, American Society of Anesthesiologists Annual Meeting, 10/2021, San Diego, CA
10. (1) Grand Rounds: Postpartum Hemorrhage and (2) Resident Rounds: What's New in Obstetric Anesthesiology, Department of Anesthesiology, University of Massachusetts, 11/2021, Worcester, MA
11. (1) Grand Rounds: Postpartum Hemorrhage and (2) Resident Journal Club: Sacral Anatomical Interspace Landmark, Department of Anesthesiology, Tufts University School of Medicine, 03/2022, Boston, MA
12. Safety in Obstetric Anesthesia, XII Cuban Congress of Anesthesiology (XII Congreso Cubano de Anestesiologia), 11/2022, La Habana, Cuba
13. Safety of Neuraxial Analgesia and Anesthesia Regarding Prevention of Conus Medullaris Injury and Early Recognition of High Spinal Anesthesia in Labor, OB Anesthesia Fellows Webinar Series, Society for Obstetric Anesthesia and Perinatology, 09/2023, Webinar
14. Last Five Years of Obstetric Anesthesiology, Svensk Förening för Anestesi och Intensivvård (National Congress of the Swedish Society for Anesthesiology and Intensive Care), 09/2023, Umeå, Sweden
15. Sacral Anatomical Interspace Landmark Technique - e-Journal Club discussion for anesthesiology residents, Tufts University, Boston, MA, 03/2024, Virtual Presentation

#### **Moderator**

1. Resident Case Presentations, Society for Obstetric Anesthesia and Perinatology, 44th Annual Meeting, 05/2012, Monterey, CA
2. Research Poster Session, Labor Analgesia, Society for Obstetric Anesthesia and Perinatology Annual Meeting, 05/2022, Chicago, IL
3. Obstetric Anesthesia and Perinatology Oral Presentations Session, American Society of Anesthesiologists (ASA) Annual Meeting, 10/2024, Philadelphia, PA

#### **Panel**

1. Expert in the Panel Discussion: Global Fusion of Clinical Obstetric Anesthesia Practices, 12th National Conference of Association of Obstetric Anesthesiologists of India, 09/2019, Chennai, India
2. Implementing Practice Change Using the Literature: Norepinephrine for Routine Use, Janda A, Mets B, **Pancaro C**, American Society of Anesthesiologists Annual Meeting, 10/2021, San Diego, CA

#### **Seminar**

1. Workshop on Maternal Cardiac Arrest, 12th National Conference of Association of Obstetric Anesthesiologists of India, 09/2019, Chennai, India

#### **Publications/Scholarship**

(Co-First Author \*; Corresponding author \*\*; Co-Last author \*\*\*)

## Peer-Reviewed

### Journal Article

1. Duflo F, Li X, Bantel C, **Pancaro C**, Vincler M, Eisenach JC: Peripheral nerve injury alters the alpha2 adrenoceptor subtype activated by clonidine for analgesia. *Anesthesiology*.97(3): 636-641, 09/2002. PM12218531
2. **Pancaro C**, Ma W, Vincler M, Duflo F, Eisenach JC: Clonidine-induced neuronal activation in the spinal cord is altered after peripheral nerve injury. *Anesthesiology*.98(3): 748-753, 03/2003. PM12606922
3. Toscano A, **Pancaro C**, Giovannoni S, Minelli G, Baldi C, Guerrieri G, Crowhurst JA, Peduto VA: Sevoflurane analgesia in obstetrics: a pilot study. *Int J Obstet Anesth*.12(2): 79-82, 04/2003. PM15321492
4. **Pancaro C**, Giovannoni S, Toscano A, Peduto VA: Apnea during induction of anesthesia with sevoflurane is related to its mode of administration. *Canadian Journal of Anesthesia*.52(6): 591-594, 01/2005. PM15983143
5. Toscano A, **Pancaro C**, Peduto VA: Scopolamine prevents dreams during general anesthesia. *Anesthesiology*.106(5): 952-955, 05/2007. PM17457126
6. Shin JW, **Pancaro C**, Wang CF, Gerner P: Low-dose systemic bupivacaine prevents the development of allodynia after thoracotomy in rats. *Anesth Analg*.107(5): 1587-1591, 11/2008. PM18931216
7. Shin J-W, **Pancaro C**, Wang CF, Gerner P: The effects of resiniferatoxin in an experimental rat thoracotomy model. *Anesth Analg*.110(1): 228-232, 01/2010. PM19933535
8. Varelmann D, **Pancaro C**, Cappiello EC, Camann WR: Nocebo-induced hyperalgesia during local anesthetic injection. *Anesth Analg*.110(3): 868-870, 03/2010. PM20042440
9. Wang C-F, **Pancaro C**, Gerner P, Strichartz G: Prolonged suppression of postincisional pain by a slow-release formulation of lidocaine. *Anesthesiology*.114(1): 135-149, 01/2011. PM21169797
10. **Pancaro C**, Nasr VG, Paulus JK, Bonney I, Flores AF, Galper JB, Ahmed I: Phenylephrine as a simulated intravascular epidural test dose in pediatrics: a pilot study. *Paediatr Anaesth*.23(6): 502-509, 06/2013. PM23534952
11. Modanlou S, Marie Giglio N, Carroll T, **Pancaro C**: Unexplained Profound Hypoglycemia After Vocal Fold Lipoinjection. *A & A case reports*.6(3): 45-47, 02/2016. PM26491839
12. **Pancaro C**, Segal BS, Sikes RW, Almeer Z, Schumann R, Azocar RJ, Marchand JE: Dexmedetomidine and ketamine show distinct patterns of cell degeneration and apoptosis in the developing rat neonatal brain. *Journal of Maternal-Fetal and Neonatal Medicine*.29(23): 3827-3833, 12/2016. PM26821538
13. Lange EM S, Segal S, **Pancaro C**, Wong CA, Grobman WA, Russell GB, Toledo P: Association between Intrapartum Magnesium Administration and the Incidence of Maternal Fever: A Retrospective Cross-sectional Study. *Anesthesiology*.127(6): 942-952, 12/2017. PM28863031
14. Segal S, **Pancaro C**, Bonney I, Marchand JE: Noninfectious Fever in the Near-Term Pregnant Rat Induces Fetal Brain Inflammation: A Model for the Consequences of Epidural-Associated Maternal Fever. *Anesth Analg*.125(6): 2134-2140, 12/2017. PM29049070
15. Boulanger-Bertolus J, **Pancaro C**, Mashour GA: Increasing Role of Maternal Immune Activation in Neurodevelopmental Disorders. *Front Behav Neurosci*.12: 230, 01/2018. PM30344483
16. **Pancaro C**, Boulanger-Bertolus J, Segal S, Watson CJ, St Charles I, Mashour GA, Marchand JE: Maternal Noninfectious Fever Enhances Cell Proliferation and Microglial Activation in the Neonatal Rat Dentate Gyrus. *Anesthesia and Analgesia*.128(6): 1190-1198, 06/2019. PM30882525
17. **Pancaro C**, Shah N, Pasma W, Saager L, Cassidy R, van Klei W, Kooij F, Vittali D, Hollmann MW, Kheterpal S, Lirk P: Risk of Major Complications After Perioperative Norepinephrine Infusion Through Peripheral Intravenous Lines in a Multicenter Study. *Anesth Analg*.09/2019. PM31569163
18. Crissman HP, Loder C, **Pancaro C**, Bell J: Case report of amniotic fluid embolism coagulopathy following abortion; Use of viscoelastic point-of-care analysis. *BMC Pregnancy and Childbirth*.20(1)01/2020. PM31900130

19. **Pancaro C**, Rajala B, Vahabzadeh C, Cassidy R, Klumpner TT, Kountanis JA, McCabe M, Rector D, Aman C, Sankar K, Schoenfeld R, Engoren M: Sacral anatomical interspace landmark for lumbar puncture in pregnancy: A randomized trial. *Neurology*.94(6): E626-E634, 02/2020. PM31831599
20. Ragheb JW, Kountanis JA, Shilling BA, Cassidy R, McKinney AM, **Pancaro C**: Retrospective study evaluating telehealth antenatal anesthesia consults for high-risk obstetric patients. *The Journal of Maternal-Fetal & Neonatal Medicine*.35(25): 8836-8843, 01/2021
21. Singh S, Klumpner TT, **Pancaro C**, Rajala B, Kountanis JA: Sugammadex Administration in Pregnant Women: A Case Series of Maternal and Fetal Outcomes. *A&A practice*.15(2): e01407-e01407, 02/2021. PM33626026
22. Douville NJ, Douville CB, Mentz G, Mathis MR, **Pancaro C**, Tremper KK, Engoren M: Clinically applicable approach for predicting mechanical ventilation in patients with COVID-19. *Br J Anaesth*.126(3): 578-589, 03/2021. PM33454051
23. **Pancaro C**, Purtell J, LaBuda D, Saager L, Klumpner TT, Dubovoy T, Rajala B, Singh S, Cassidy R, Vahabzadeh C, Maxwell S, Manica V, Eckmann DM, Mhyre JM, Engoren MC: Difficulty in Advancing Flexible Epidural Catheters When Establishing Labor Analgesia: An Observational Open-Label Randomized Trial. *Anesth Analg*.133(1): 151-159, 07/2021. PM33835077
24. Giri T, Panda S, Kelly JC, **Pancaro C**, Palanisamy A: Upregulated influenza A viral entry factors and enhanced interferon-alpha response in the nasal epithelium of pregnant rats. *Heliyon*.8(5)01/2022. PM35592667
25. Ragheb JW, Kountanis JA, Shilling BA, Cassidy R, McKinney AM, **Pancaro C**: Retrospective study evaluating telehealth antenatal anesthesia consults for high-risk obstetric patients. *J Matern Fetal Neonatal Med*.35(25): 8836-8843, 12/2022. PM34806512
26. Engoren M, **Pancaro C**, Yeldo NS, Kerzabi LS, Douville N: Comparison of static and rolling logistic regression models on predicting invasive mechanical ventilation or death from COVID-19—A retrospective, multicentre study. *Clinical Respiratory Journal*.17(1): 40-49, 01/2023. PM36411722
27. Miller C, Bräuer A, Wieditz J, Klose K, **Pancaro C**, Nemeth M: Modeling iatrogenic intraoperative hyperthermia from external warming in children: A pooled analysis from two prospective observational studies. *Paediatric Anaesthesia*.33(2): 114-122, 02/2023. PM36268791
28. Nemeth M, Klose K, Asendorf T, **Pancaro C**, Mielke B, Fazliu A, Saager L, Bräuer A, Miller C: Evaluation of the non-invasive Temple Touch Pro temperature monitoring system compared with oesophageal temperature in paediatric anaesthesia (PETER PAN): A prospective observational study. *European Journal of Anaesthesiology*.40(3): 198-207, 03/2023. PM36621856
29. Nemeth M, Ernst M, Asendorf T, Wilmers S, **Pancaro C**, Kunze-Szikszay N, Miller C: Guedel oropharyngeal airway: The validation of facial landmark-distances to estimate sizing in children – Visualisation by magnetic resonance imaging (GUEDEL-I): A prospective observational study. *Resuscitation*.184: 109702, 03/2023. PM36702339
30. **Pancaro C**, Balonov K, Herbert K, Shah N, Segal S, Cassidy R, Engoren MC, Manica V, Habib AS: Role of cosyntropin in the management of postpartum post-dural puncture headache: a two-center retrospective cohort study. *Int J Obstet Anesth*.56: 103917, 11/2023. PM37625985
31. Pohl N, Bauer M, **Pancaro C**, Cassidy R, Engoren M: Characteristics and Outcomes of Obstetric Sepsis by Three Sets of Clinical Diagnostic Criteria: A Retrospective Study. *Am J Perinatol*.41(S 01): e3035-e3044, 05/2024. PM37793431
32. Miller C, Scholand J, Wieditz J, **Pancaro C**, Rosewich H, Nemeth M: Factors Influencing Willingness to Participate in Clinical Studies in Pediatric Anesthesia (FILIPPA): A vignette-based, structured interview study. *Paediatr Anaesth*.34(8): 800-809, 08/2024. PM38757570
33. Maxwell S, Rajala B, Schechtman SA, Kountanis JA, Singh S, Klumpner TT, Cassidy R, Zisblatt L, Healy DW, Engoren M, Cooke JM, **Pancaro C**: Development of the obstetric unanticipated difficult video-laryngoscopy algorithm through a quality improvement randomized open-label in situ simulation study. *Int J Obstet Anesth*.60: 104245, 08/2024. PM39236438



## Chapters

1. **Pancaro C**, Camann WR: Physiologic changes during pregnancy. In Vacanti CA, Sikka PK, Urnam RD, Dershwitz Segal BS Eds. *Essential Clinical Anesthesia*, Cambridge University Press, New York, NY, (2011)
2. **Pancaro C**: Preterm labor and delivery. In Suresh MS, Segal BS, Preston R, Fernando R, Mason CL T Eds. *Shnider and Levinson's Anesthesia for Obstetrics, Fifth Edition*, Lippincott Williams & Wilkins, Philadelphia, PA, (2013), 278-302
3. Papadelis A, **Pancaro C**: Neuraxial ultrasound for axial skeletal conditions. In Gambling DR, Douglas MJ, Lim G Eds. *Obstetric Anesthesia and Uncommon Disorders, Third Edition*, Cambridge University Press, (2022)

## Submitted Peer-Reviewed

### Journal Article

1. Singh S, Klumpner T, Rajala B, Li J, Servin M, Schumacher R, Carver A, **Pancaro C**, Barrios N, Yuan Y, Mentz G, Kountanis JA: The effect of the dose of maternal general anesthesia on neonatal outcomes: A retrospective cohort study. *Anesthesiology*. ,(Submitted)

## Non-Peer Reviewed

### Book Review

1. **Pancaro C**, Eisenach JC: Cardiac Anesthesia: Principles and Clinical Practice, 2nd edition. *Anesthesiology*.98(1): 284-284, 01/2003

### Correction

1. Toscano A, **Pancaro C**, Peduto VA: Scopolamine prevents dreams during general anesthesia. (vol 106, pg 952, 2007). *ANESTHESIOLOGY*.107(2): 362-362, 01/2007

### Editorial

1. Toscano A, **Pancaro C**: Obstetric analgesia: back to the future?. *J Matern Fetal Neonatal Med*.14(1): 6-7, 07/2003. PM14563085

### Erratum

1. Toscano A, **Pancaro C**, Peduto VA: Erratum: Scopolamine prevents dreams during general anesthesia (*Anesthesiology* (2007) 106, (952-955)). *Anesthesiology*.107(2): 362, 01/2007

### Letter

1. **Pancaro C**, Renz D: Anesthetic management in Friedreich's ataxia [1]. *Paediatric Anaesthesia*.15(5): 433-434, 05/2005. PM15828998
2. **Pancaro C**, Renz D: Authors' reply [5]. *Paediatric Anaesthesia*.15(11): 1024, 11/2005
3. **Pancaro C**, Miller T, Dingeman RS: Anesthetic management of a child with bannayan-riley-ruvalcaba syndrome. *Anesthesia and Analgesia*.106(6): 1928-1929, 01/2008. PM18499642
4. **Pancaro C**, Dingeman RS, Miller T: Temperature probe used as a flexible stylet for unexpected difficult laryngoscopy in an infant. *Journal of Clinical Anesthesia*.23(6): 517, 09/2011. PM21783352
5. Bauer ME, Chiware R, **Pancaro C**: Neuraxial Procedures in COVID-19-Positive Parturients: A Review of Current Reports. *Anesth Analg*.131(1): e22-e24, 07/2020. PM32221171
6. **Pancaro C**, Kheterpal S, Lirk P: In Response. *Anesthesia and Analgesia*.132(5): E81-E82, 05/2021. PM33858000

### Other

1. Varelmann D, **Pancaro C**, Cappiello EC, Camann WR: Nocebo-induced Hyperalgesia During Local Anesthetic Injection. *Obstetric Anesthesia Digest*.31(2): 124-125, 06/2011

2. Segal S, **Pancaro C**, Bonney I, Marchand JE: Noninfectious Fever in the Near-Term Pregnant Rat Induces Fetal Brain Inflammation. *Obstetric Anesthesia Digest*.38(2): 59-60, 06/2018
3. Lange EM S, Segal S, **Pancaro C**, Wong CA, Grobman WA, Russell GB, Toledo P: Association Between Intrapartum Magnesium Administration and the Incidence of Maternal Fever. *Obstetric Anesthesia Digest*.38(3): 146-148, 09/2018
4. **Pancaro C**, Boulanger-Bertolus J, Segal S, Watson CJ, St Charles I, Mashour GA, Marchand JE: Maternal Noninfectious Fever Enhances Cell Proliferation and Microglial Activation in the Neonatal Rat Dentate Gyrus. *Obstetric Anesthesia Digest*.40(1): 37-38, 03/2020
5. Das DK: Peripheral I.V. Norepinephrine for Perioperative Hypotension, *ASA Monitor*, July 2021, Vol 85, 1-11 (Dr. Carlo Pancaro was interviewed as an expert for the article (<https://doi.org/10.1097/01.ASM.0000758280.34278.ca>), 01/2021
6. **Pancaro C**, Balonov K, Herbert K, Shah N, Segal S, Cassidy R, Engoren M, Manica V, Habib A: Role of Cosyntropin in the Management of Postpartum Postdural Puncture Headache: A Two-center Retrospective Cohort Study. *Obstetric Anesthesia Digest*.44(3): 161-162, 09/2024

### **Abstract/Posters**

1. **Pancaro C**: Magnesium Modulates IL-6-induced Maternal Fever and Increases Brain Activated Astrocytes, Abstract, Oral Presentation, Poster, Society for Obstetric Anesthesia and Perinatology 46th Annual Meeting, Toronto, Ontario, Canada, 2014
2. **Pancaro C**, Segal BS, Azocar R, Schumann R, Bonney I, Marchand J: IL-6-induced Fetal Neuroinflammation Upregulates Neuronal Progenitors in the Primordial Dentate Gyrus, Oral Presentation, Abstract, Poster, Society for Obstetric Anesthesia and Perinatology 48th Annual Meeting, Boston, MA, 2016, *Best Paper Competition*
3. Brown S, **Pancaro C**: ROTEM Informs Care in Case of Amniotic Fluid Embolism, Abstract, Oral Presentation, Poster, Society for Obstetric Anesthesia and Perinatology 50th Annual Meeting, Miami, FL, 2018
4. Groody K, **Pancaro C**, Singh S: Massive Obstetric Hemorrhage in a Concealed Placental Abruption and IUFD, Poster, American Society of Anesthesiologists Ann, Virtual, 2020
5. Papadelis A, **Pancaro C**: Anesthetic Considerations in a Patient with Anti-NMDA Receptor Encephalitis, Abstract, Oral Presentation, Poster, American Society of Anesthesiologists Annual Meeting, San Diego, CA, 2021