

Michael A Flierl, M.D.
Oakland University William Beaumont
Orthopaedic Surgery
Michigan Orthopaedic Surgeons
Division of Troy Orthopaedic Associates
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Education & Training

Education

08/1999 - 07/2004 University of Ulm, Ulm
08/2004 - 09/2005 MD, Technical University of Munich, Munich

PostDoctoral Training

01/2006 - 06/2008 Postdoctoral Research Fellow - University of Michigan, Ann Arbor, MI
07/2008 - 06/2010 Postdoctoral Research Fellow - Denver Health Medical Center, Denver, CO
07/2010 - 07/2011 Internship - University of Colorado, Aurora, CO
07/2011 - 07/2015 Residency - University of Colorado, Aurora, CO
08/2015 - 07/2016 Fellowship - Rush University Medical Center, Chicago, IL, Adult Reconstruction/Joint Replacement

Licensures & Certifications

Licensure

2013 - 2017 Physician License, DR 0052804, State of Colorado
2015 - 2017 Physician License, 01075816A, State of Indiana
2015 - 2017 Physician License, 036.137837, State of Illinois
2016 - Present Physician License, 4301109159, State of Michigan

Certification

2018 - Present American Board of Orthopaedic Surgery, Orthopaedic Surgery

Appointments & Employment

Academic

Academic Appointments

04/2017 - Present Assistant Professor, Orthopaedic Surgery, Oakland University William Beaumont School of Medicine, Auburn Hills, MI

Administrative

Administrative Appointments

2018 - Present Michigan Arthroplasty Registry Collaborative Quality Initiative (MARCQI) Clinical Champion, Beaumont Troy, Troy, MI

Professional

Consulting

2020 - Present Zimmer/Biomet, Zimmer/Biomet, Warsaw, IN
2020 - Present DePuy, DePuy, Warsaw, IN

Private Practice/Consulting

08/2016 - Present Orthopaedic Surgeon, Michigan Orthopaedic Surgeons, Troy, MI

Professional Memberships

Professional Memberships

06/2010 - Present	American Academy of Orthopaedic Surgeons
08/2015 - Present	American Association of Hip and Knee Surgeons

Awards & Honors

National

03/2012	AO Basic Fracture Care Course – Best preoperative plan and execution
11/2012	Travel Stipend Award for residents to the AAHKS National Meeting

Institutional

07/2010	Best doctoral thesis 2010, University of Ulm, Ulm, Germany
06/2015	Induction into the Gold Humanism Honor Society (GHHS) - University of Colorado resident and fellow chapter

Publications

Peer Reviewed

1. Huber-Lang M, Sarma JV, Rittirsch D, Schreiber H, Weiss M, **Flierl M**, Younkin E, Schneider M, Suger-Wiedeck H, Gebhard F, McClintock SD, Neff T, Zetoune F, Brueckner U, Guo RF, Monk PN, Ward PA. Changes in the novel orphan, C5a receptor (C5L2), during experimental sepsis and sepsis in humans. *Journal of immunology (Baltimore, Md. : 1950)* . 01/2005; 174(2): 1104-10. 15634936
2. Schreiber H, Rittirsch D, **Flierl M**, Brueckner U, Schneider M, Weiss M, Gebhard F, Huber-Lang M. Complement activation during sepsis in humans. *Advances in experimental medicine and biology* . 01/2006; 586: 217-26. 16893075
3. **Flierl MA**, Schreiber H, Huber-Lang MS. The role of complement, C5a and its receptors in sepsis and multiorgan dysfunction syndrome. *Journal of investigative surgery : the official journal of the Academy of Surgical Research* . 01/2006; 19(4): 255-65. 16835140
4. Huber-Lang M, Sarma JV, Zetoune FS, Rittirsch D, Neff TA, McGuire SR, Lambris JD, Warner RL, **Flierl MA**, Hoesel LM, Gebhard F, Younger JG, Drouin SM, Wetsel RA, Ward PA. Generation of C5a in the absence of C3: a new complement activation pathway. *Nature medicine* . 06/2006; 12(6): 682-7. 16715088
5. **Flierl MA**, Rittirsch D, Nadeau BA, Chen AJ, Sarma JV, Zetoune FS, McGuire SR, List RP, Day DE, Hoesel LM, Gao H, Van Rooijen N, Huber-Lang MS, Neubig RR, Ward PA. Phagocyte-derived catecholamines enhance acute inflammatory injury. *Nature* . 10/2007; 449(7163): 721-5. 17914358
6. Amara U, Rittirsch D, **Flierl M**, Brueckner U, Klos A, Gebhard F, Lambris JD, Huber-Lang M. Interaction between the coagulation and complement system. *Advances in experimental medicine and biology* . 01/2008; 632: 71-9. 19025115
7. **Flierl MA**, Rittirsch D, Sarma JV, Huber-Lang M, Ward PA. Adrenergic regulation of complement-induced acute lung injury. *Advances in experimental medicine and biology* . 01/2008; 632: 93-103. 19025117
8. **Flierl MA**, Rittirsch D, Huber-Lang MS, Sarma JV, Ward PA. Molecular events in the cardiomyopathy of sepsis. *Molecular medicine (Cambridge, Mass.)* . 01/2008; 14(5-6): 327-36. 18256728
9. **Flierl MA**, Rittirsch D, Huber-Lang M, Sarma JV, Ward PA. Catecholamines-crafty weapons in the inflammatory arsenal of immune/inflammatory cells or opening pandora's box?. *Molecular medicine (Cambridge, Mass.)* . 01/2008; 14(3-4): 195-204. 18079995
10. **Flierl MA**, Perl M, Rittirsch D, Bartl C, Schreiber H, Fleig V, Schlaf G, Liener U, Brueckner UB, Gebhard F, Huber-Lang MS. The role of C5a in the innate immune response after experimental blunt chest trauma. *Shock (Augusta, Ga.)* . 01/2008; 29(1): 25-31. 17621257
11. **Flierl MA**. German surgical residency training - quo vadis?. *Patient safety in surgery* . 04/2008; 2: 9. 18439281
12. Hoesel LM, **Flierl MA**, Niederbichler AD, Rittirsch D, McClintock SD, Reuben JS, Pianko MJ, Stone W, Yang H, Smith M, Sarma JV, Ward PA. Ability of antioxidant liposomes to prevent acute and progressive pulmonary injury. *Antioxidants & redox signaling* . 05/2008; 10(5): 973-81. 18257742
13. Rittirsch D, **Flierl MA**, Nadeau BA, Day DE, Huber-Lang M, Mackay CR, Zetoune FS, Gerard NP, Cianflone K, Köhl J, Gerard C, Sarma JV, Ward PA. Functional roles for C5a receptors in sepsis. *Nature medicine* . 05/2008; 14(5): 551-7. 18454156
14. Rittirsch D, **Flierl MA**, Day DE, Nadeau BA, McGuire SR, Hoesel LM, Ipaktchi K, Zetoune FS, Sarma JV, Leng L, Huber-Lang MS, Neff TA, Bucala R, Ward PA. Acute lung injury induced by lipopolysaccharide is independent of complement activation. *Journal of immunology (Baltimore, Md. : 1950)* . 06/2008; 180(11): 7664-72. 18490769
15. **Flierl MA**, Rittirsch D, Gao H, Hoesel LM, Nadeau BA, Day DE, Zetoune FS, Sarma JV, Huber-Lang MS, Ferrara JL, Ward PA. Adverse functions of IL-17A in experimental sepsis. *FASEB journal : official publication of the Federation of American Societies for Experimental Biology* . 07/2008; 22(7): 2198-205. 18299333
16. **Flierl MA**, Rittirsch D, Chen AJ, Nadeau BA, Day DE, Sarma JV, Huber-Lang MS, Ward PA. The complement anaphylatoxin C5a induces apoptosis in adrenomedullary cells during experimental sepsis. *PLoS one* . 07/2008; 3(7): e2560. 18648551
17. Stahel PF, **Flierl MA**. Orthopedic residency training in Germany: an endangered species?. *Orthopedics* . 08/2008; 31(8): 742-3. 18714767
18. Rittirsch D, **Flierl MA**, Ward PA. Harmful molecular mechanisms in sepsis. *Nature reviews. Immunology* . 10/2008; 8(10): 776-87.

19. **Flierl MA**, Rittirsch D, Nadeau BA, Day DE, Zetoune FS, Sarma JV, Huber-Lang MS, Ward PA. Functions of the complement components C3 and C5 during sepsis. *FASEB journal : official publication of the Federation of American Societies for Experimental Biology*. 10/2008; 22(10): 3483-90. 18587006
20. **Flierl MA**, Stahel PF, Touban BM, Beauchamp KM, Morgan SJ, Smith WR, Ipaktchi KR. Bench-to-bedside review: Burn-induced cerebral inflammation--a neglected entity?. *Critical care (London, England)*. 01/2009; 13(3): 215. 19638180
21. **Flierl MA**, Rittirsch D, Nadeau BA, Sarma JV, Day DE, Lentsch AB, Huber-Lang MS, Ward PA. Upregulation of phagocyte-derived catecholamines augments the acute inflammatory response. *PLoS one*. 01/2009; 4(2): e4414. 19212441
22. **Flierl MA**, Stahel PF, Rittirsch D, Huber-Lang M, Niederbichler AD, Hoesel LM, Touban BM, Morgan SJ, Smith WR, Ward PA, Ipaktchi K. Inhibition of complement C5a prevents breakdown of the blood-brain barrier and pituitary dysfunction in experimental sepsis. *Critical care (London, England)*. 01/2009; 13(1): R12. 19196477
23. **Flierl MA**, Stahel PF, Beauchamp KM, Morgan SJ, Smith WR, Shohami E. Mouse closed head injury model induced by a weight-drop device. *Nature protocols*. 01/2009; 4(9): 1328-37. 19713954
24. Rittirsch D, Huber-Lang MS, **Flierl MA**, Ward PA. Immunodesign of experimental sepsis by cecal ligation and puncture. *Nature protocols*. 01/2009; 4(1): 31-6. 19131954
25. Stahel PF, **Flierl MA**, Morgan BP, Persigehl I, Stoll C, Conrad C, Touban BM, Smith WR, Beauchamp K, Schmidt OI, Ertel W, Leinase I. Absence of the complement regulatory molecule CD59a leads to exacerbated neuropathology after traumatic brain injury in mice. *Journal of neuroinflammation*. 01/2009; 6: 2. 19133139
26. **Flierl MA**, Beauchamp KM, Bolles GE, Moore EE, Stahel PF. Fatal outcome after insufficient spine fixation for pyogenic thoracic spondylodiscitis: an imperative for 360 degrees fusion of the infected spine. *Patient safety in surgery*. 02/2009; 3(1): 4. 19243602
27. Stahel PF, Moore EE, Schreier SL, **Flierl MA**, Kashuk JL. Transfusion strategies in postinjury coagulopathy. *Current opinion in anaesthesiology*. 04/2009; 22(2): 289-98. 19390256
28. Stahel PF, **Flierl MA**, Moore EE, Smith WR, Beauchamp KM, Dwyer A. Advocating "spine damage control" as a safe and effective treatment modality for unstable thoracolumbar fractures in polytrauma patients: a hypothesis. *Journal of trauma management & outcomes*. 05/2009; 3: 6. 19432965
29. Rittirsch D, **Flierl MA**, Day DE, Nadeau BA, Zetoune FS, Sarma JV, Werner CM, Wanner GA, Simmen HP, Huber-Lang MS, Ward PA. Cross-talk between TLR4 and FcgammaReceptorIII (CD16) pathways. *PLoS pathogens*. 06/2009; 5(6): e1000464. 19503602
30. Lutes WB, **Flierl MA**, Dayton MR, Morgan SJ. Improving accuracy of total knee component cementation: description of a simple technique. *Journal of orthopaedic surgery and research*. 10/2009; 4: 38. 19818136
31. Stahel PF, **Flierl MA**, Smith WR, Morgan SJ, Victoroff MS, Clarke TJ, Sabel AL, Mehler PS. Disclosure and reporting of surgical complications: a double-edged sword?. *American journal of medical quality : the official journal of the American College of Medical Quality*. 01/2010; 25(5): 398-401. 20592238
32. **Flierl MA**, Gerhardt DC, Hak DJ, Morgan SJ, Stahel PF. Key issues and controversies in the acute management of hip fractures. *Orthopedics*. 02/2010; 33(2): 102-10. 20187589
33. **Flierl MA**, Stoneback JW, Beauchamp KM, Hak DJ, Morgan SJ, Smith WR, Stahel PF. Femur shaft fracture fixation in head-injured patients: when is the right time?. *Journal of orthopaedic trauma*. 02/2010; 24(2): 107-14. 20101135
34. Stahel PF, **Flierl MA**, Morgan SJ, Smith WR. Management of a trochanteric fracture complicated by a bent solid intramedullary femoral nail in situ: description of technique. *Journal of orthopaedic trauma*. 03/2010; 24(3): e25-30. 20182247
35. Stahel PF, Fakler JK, **Flierl MA**, Moldenhauer K, Mehler PS. [Current concepts of patient safety: rapid response system]. *Der Unfallchirurg*. 03/2010; 113(3): 239-46. 20174916
36. Blum AL, BongioVanni JC, Morgan SJ, **Flierl MA**, dos Reis FB. Complications associated with distraction osteogenesis for infected nonunion of the femoral shaft in the presence of a bone defect: a retrospective series. *The Journal of bone and joint surgery. British volume*. 04/2010; 92(4): 565-70. 20357336
37. Angelini AJ, Livani B, **Flierl MA**, Morgan SJ, Belangero WD. Less invasive percutaneous wave plating of simple femur shaft fractures: A prospective series. *Injury*. 06/2010; 41(6): 624-8. 20170914
38. Amara U, Kalbitz M, Perl M, **Flierl MA**, Rittirsch D, Weiss M, Schneider M, Gebhard F, Huber-Lang M. Early expression changes of complement regulatory proteins and C5A receptor (CD88) on leukocytes after multiple injury in humans. *Shock (Augusta, Ga.)*. 06/2010; 33(6): 568-75. 19864971
39. Suzuki T, Morgan SJ, Smith WR, Stahel PF, **Flierl MA**, Hak DJ. Stress radiograph to detect true extent of symphyseal disruption in presumed anteroposterior compression type I pelvic injuries. *The Journal of trauma*. 10/2010; 69(4): 880-5. 20938276
40. **Flierl MA**, Stahel PF, Hak DJ, Morgan SJ, Smith WR. Traction table-related complications in orthopaedic surgery. *The Journal of the American Academy of Orthopaedic Surgeons*. 11/2010; 18(11): 668-75. 21041801
41. Amara U, **Flierl MA**, Rittirsch D, Klos A, Chen H, Acker B, Brückner UB, Nilsson B, Gebhard F, Lambris JD, Huber-Lang M. Molecular intercommunication between the complement and coagulation systems. *Journal of immunology (Baltimore, Md. : 1950)*. 11/2010; 185(9): 5628-36. 20870944
42. **Flierl MA**, Gaudiani JL, Sabel AL, Long CS, Stahel PF, Mehler PS. Complement C3 serum levels in anorexia nervosa: a potential biomarker for the severity of disease?. *Annals of general psychiatry*. 05/2011; 10: 16. 21542928
43. Weckbach S, **Flierl MA**, Huber-Lang M, Gebhard F, Stahel PF. [Surgical treatment of ankle fractures as an outpatient procedure. A safe and resource-efficient concept?]. *Der Unfallchirurg*. 10/2011; 114(10): 938-42. 21779897
44. Weckbach S, **Flierl MA**, Blei M, Burlew CC, Moore EE, Stahel PF. Survival following a vertical free fall from 300 feet: the crucial role of body position to impact surface. *Scandinavian journal of trauma, resuscitation and emergency medicine*. 10/2011; 19: 63. 22027092
45. Neher MD, Weckbach S, **Flierl MA**, Huber-Lang MS, Stahel PF. Molecular mechanisms of inflammation and tissue injury after major trauma--is complement the "bad guy"?. *Journal of biomedical science*. 11/2011; 18: 90. 22129197
46. **Flierl MA**, Rittirsch D, Weckbach S, Huber-Lang M, Ipaktchi K, Ward PA, Stahel PF. Disturbances of the hypothalamic-pituitary-adrenal axis and plasma electrolytes during experimental sepsis. *Annals of intensive care*. 12/2011; 1: 53. 22208725

47. Weckbach S, Perl M, Heiland T, Braumüller S, Stahel PF, **Flierl MA**, Ignatius A, Gebhard F, Huber-Lang M. A new experimental polytrauma model in rats: molecular characterization of the early inflammatory response. *Mediators of inflammation*. 01/2012; 2012: 890816. 22481866
48. Agudelo JF, **Flierl MA**, Smith WR, Moore EE, Williams AE, Eckels PC, Morgan SJ, Stahel PF. Influence of preoperative 7.5% hypertonic saline on neutrophil activation after reamed intramedullary nailing of femur shaft fractures: a prospective randomized pilot study. *Journal of orthopaedic trauma*. 02/2012; 26(2): 86-91. 21904224
49. Burk AM, Martin M, **Flierl MA**, Rittirsch D, Helm M, Lampl L, Bruckner U, Stahl GL, Blom AM, Perl M, Gebhard F, Huber-Lang M. Early complementopathy after multiple injuries in humans. *Shock (Augusta, Ga.)*. 04/2012; 37(4): 348-54. 22258234
50. Weckbach S, Neher M, Losacco JT, Bolden AL, Kulik L, **Flierl MA**, Bell SE, Holers VM, Stahel PF. Challenging the role of adaptive immunity in neurotrauma: Rag1(-/-) mice lacking mature B and T cells do not show neuroprotection after closed head injury. *Journal of neurotrauma*. 04/2012; 29(6): 1233-42. 22335783
51. Stahel PF, VanderHeiden T, **Flierl MA**, Matava B, Gerhardt D, Bolles G, Beauchamp K, Burlew CC, Johnson JL, Moore EE. The impact of a standardized "spine damage-control" protocol for unstable thoracic and lumbar spine fractures in severely injured patients: a prospective cohort study. *The journal of trauma and acute care surgery*. 02/2013; 74(2): 590-6. 23354256
52. Unnewehr H, Rittirsch D, Sarma JV, Zetoune F, **Flierl MA**, Perl M, Denk S, Weiss M, Schneider ME, Monk PN, Neff T, Mihlan M, Barth H, Gebhard F, Ward PA, Huber-Lang M. Changes and regulation of the C5a receptor on neutrophils during septic shock in humans. *Journal of immunology (Baltimore, Md. : 1950)*. 04/2013; 190(8): 4215-25. 23479227
53. Rittirsch D, **Flierl MA**, Nadeau BA, Day DE, Huber-Lang MS, Grailer JJ, Zetoune FS, Andjelkovic AV, Fasano A, Ward PA. Zonulin as prehepato-globin2 regulates lung permeability and activates the complement system. *American journal of physiology. Lung cellular and molecular physiology*. 06/2013; 304(12): L863-72. 23564505
54. **Flierl MA**, Smith WR, Mauffrey C, Irgit K, Williams AE, Ross E, Peacher G, Hak DJ, Stahel PF. Outcomes and complication rates of different bone grafting modalities in long bone fracture nonunions: a retrospective cohort study in 182 patients. *Journal of orthopaedic surgery and research*. 09/2013; 8: 33. 24016227
55. Neher MD, Rich MC, Keene CN, Weckbach S, Bolden AL, Losacco JT, Patane J, **Flierl MA**, Kulik L, Holers VM, Stahel PF. Deficiency of complement receptors CR2/CR1 in Cr2^{-/-} mice reduces the extent of secondary brain damage after closed head injury. *Journal of neuroinflammation*. 05/2014; 11: 95. 24885042
56. **Flierl MA**, Bravman JT, Eckhoff DG. Successful LCL reconstruction and PCL repair for LCL tear and PCL avulsion following total knee arthroplasty. *Knee surgery, sports traumatology, arthroscopy : official journal of the ESSKA*. 11/2014; 22(11): 2783-7. 23756851
57. **Flierl MA**, Messina MJ, Mitchell JJ, Hogan C, D'Ambrosia R. Venous thromboembolism prophylaxis after total joint arthroplasty. *Orthopedics*. 04/2015; 38(4): 252-63. 25901614
58. **Flierl MA**, Carry PM, Scott F, Georgopoulos G, Hadley-Miller N. Rotation and Displacement Predict Adverse Events in Pediatric Supracondylar Fractures. *Orthopedics*. 08/2015; 38(8): e690-5. 26270755
59. Ehrnhaller C, **Flierl M**, Perl M, Denk S, Unnewehr H, Ward PA, Radermacher P, Ignatius A, Gebhard F, Chinnaiyan A, Huber-Lang M. The molecular fingerprint of lung inflammation after blunt chest trauma. *European journal of medical research*. 08/2015; 20: 70. 26303896
60. Flierl MA, Culp BM, Okroj KT, Springer BD, Levine BR, Della Valle CJ. Poor Outcomes of Irrigation and Debridement in Acute Periprosthetic Joint Infection With Antibiotic-Impregnated Calcium Sulfate Beads. *J Arthroplasty*. 08/2017; 32(8): 2505-2507. 28434697
61. Siljander MP, Gehrke CK, Wheeler SD, Sobh AH, Moore DD, **Flierl MA**, Baker EA. Does Taper Design Affect Taper Fretting Corrosion in Ceramic-on-Polyethylene Total Hip Arthroplasty? A Retrieval Analysis. *The Journal of arthroplasty*. 07/2019; 34(7S): S366-S372.e2. 31000401
62. **Flierl MA**, Sobh AH, Culp BM, Baker EA, Sporer SM. Evaluation of the Painful Total Knee Arthroplasty. *The Journal of the American Academy of Orthopaedic Surgeons*. 10/2019; 27(20): 743-751. 31008874
63. El-Zein ZS, Gehrke CK, Croley JS, Siljander MP, Mallow MA, **Flierl MA**, Verner JJ, Baker EA. Assessing Taper Geometry, Head Size, Head Material, and Their Interactions in Taper Fretting Corrosion of Retrieved Total Hip Arthroplasty Implants. *The Journal of arthroplasty*. 02/2021. 33832796

Non-Peer Reviewed

1. Stahel PF, **Flierl MA**. Erythropoietin in traumatic brain injury: the "golden bullet" on the horizon?. *Neurology India*. 01/2009; 57(6): 693-4. 20139494
2. **Flierl MA**, Smith WR, Morgan SJ, Stahel PF. Molecular mechanisms and management of traumatic brain injury - missing the link?. *World journal of emergency surgery : WJES*. 03/2009; 4: 10. 19261191
3. **Flierl MA**, Rittirsch D, Huber-Lang MS, Stahel PF. Pathophysiology of septic encephalopathy--an unsolved puzzle. *Critical care (London, England)*. 01/2010; 14(3): 165. 20565858
4. Stahel PF, **Flierl MA**, Moore EE. "Metabolic staging" after major trauma - a guide for clinical decision making?. *Scandinavian journal of trauma, resuscitation and emergency medicine*. 06/2010; 18: 34. 20565752
5. Beauchamp KM, **Flierl MA**, Stahel PF. Re: Cappuccino A, Bisson LJ, Carpenter B, et al. The use of systemic hypothermia for the treatment of an acute cervical spinal cord injury in a professional football player. *Spine* 2010;35:E57-62. *Spine*. 09/2010; 35(19): 1827-8; author reply 1828. 20808200
6. Stahel PF, **Flierl MA**. Targeted modulation of the neuroinflammatory response after spinal cord injury: the ongoing quest for the "holy grail". *The American journal of pathology*. 12/2010; 177(6): 2685-7. 20952586
7. **Flierl MA**, Rittirsch D, Huber-Lang MS, Stahel PF. Complement in human disease. *Clinical & developmental immunology*. 01/2013; 2013: 920474. 23401704

Book Chapters

1. Stahel PF, Heyde CE, Flierl MA, Wilkerson, JA. Head and neck injuries. Wilkerson JA, Moore EE, Zafren K Medicine for Mountaineering and other Wilderness Activities. Seattle: The Mountaineers Books; 2010: 86-95
2. Flierl MA, Beauchamp KM, Dwyer A, Stahel PF. Immunological response to spinal cord injury: impact on the timing of spine surgery. Patel VV, Burger E, Brown C Spine Trauma. Berlin/Heidelberg: Springer; 2010: 73-83
3. Stahel PF, Flierl MA. Dermatome. Vincent JL, Hall J Encyclopedia of Intensive Care Medicine. Heidelberg: Springer; 2012: 693-5
4. Stahel PF, Flierl MA, Heyde CE. Initial trauma management: Spine precautions. Vincent JL, Hall J Encyclopedia of Intensive Care Medicine. Heidelberg: Springer; 2012: 1244-6
5. Stahel PF, Flierl MA, Matava B. Traumatic spondylolisthesis. Vincent JL, Hall J Encyclopedia of Intensive Care Medicine. Heidelberg: Springer; 2012: 2325-9
6. Stahel PF, Flierl MA, VanderHeiden T, Beauchamp KM. Spine damage control. Vincent JL, Hall J Encyclopedia of Intensive Care Medicine. Heidelberg: Springer; 2012: 2104-7
7. Stahel PF, Flierl MA. Closed head injury. Smith WR, Stahel PF Management of Musculoskeletal Injuries in the Trauma Patient. New York: Springer; 2014: 297-304
8. Stahel PF, Flierl MA. Head injuries: neurosurgical and orthopaedic strategies. Pape HC, Sanders R, Borrelli J, Jr The Poly-Traumatized Patient with Fractures: A Multi-Disciplinary Approach. Berlin/Heidelberg: Springer; 2016: 55-64
9. Michael A. Flierl, Kamil T. Okroj, Craig J. Della Valle. Primary Total Knee Principles With Measured Resection Technique. Mark W. Pagnano, Arlen D Hanssen Master Techniques in Orthopedic Surgery: Knee Arthroplasty. Philadelphia: Wolters Kluwer; 2018

Presentations

Invited

International

1. Flierl MA, Ward PA. Adrenergic Regulation of Lung Inflammation. 2007. 7th World Congress on Trauma, Shock, Inflammation and Sepsis
2. Flierl MA, Ward PA. Phagocytes: A New Adrenergic Organ. 2010. DFG Research Unit FOR696, University of Regensburg, Regensburg, Germany

National

1. Flierl MA. Highlight Graduate Student Posters: The Role of C5a during Experimental Blunt Chest Trauma. 2005. American Society for Investigative Pathology Annual Meeting at Experimental Biology
2. Phagocytes: A New Adrenergic Organ. 2008. 37th Critical Care Congress, Honolulu, Hawaii
3. Flierl MA, Georgeopolou G, Scott F, Miller N. Fracture Rotation and Coronal Displacement Predict Adverse Events and Outcome in Pediatric Supracondylar Humerus Fractures: A Retrospective Review of 373 Consecutive Cases. 03/2014. AAOS Annual Meeting, New Orleans
4. Michael A. Flierl MD, Brian M. Culp MD, Kamil Okroj BA, Bryan D. Springer MD, Brett R. Levine MD, Craig J. Della Valle MD. Antibiotic-impregnated Calcium Sulfate Beads Fail to Improve Outcome of Irrigation and Debridement in Acute Periprosthetic Joint Infection. 03/2017. AAOS Annual Meeting 2017, San Diego, California (CA), United States of America

Regional

1. Flierl MA, Stahel PF, Smith WR. The Lobenhoffer approach – a solution for postero-medial fracture-dislocations of the tibial plateau. 2009. Colorado AO Faculty Dinner, Denver, CO

Institutional

1. Flierl MA, Ward PA. Phagocytes: A New Adrenergic Organ. 2007. 6th annual Pathology Research Symposium, The University of Michigan Medical School

Posters / Exhibits

National

1. Brian M. Culp, Michael A. Flierl, Kamil Okroj, Brett R. Levine, Bryan D. Springer, Craig J. Della Valle. Antibiotic-Impregnated Calcium Sulfate Beads Fail to Improve Outcome of Irrigation and Debridement in Acute Periprosthetic Joint Infection. 04/2017. Mid-America Orthopaedic Association 35th Annual Meeting 2017. Omni Amelia Island Plantation, Amelia Island, Florida, Florida (FL), United States of America

Teaching

Courses Taught at Other Universities

04/08/2016 - 04/10/2016 Fundamentals of Hip and Knee Arthroplasty for Orthopaedic Residents AAOS, AAHKS, Knee Society and Hip Society #3253, Table Instructor, AAOS OLC Education and Conference Center, Rosemont, IL

Advising / Mentoring

Undergraduate Student

01/2006 - 06/2008 Brian Nadeau, University of Michigan

08/2006 - 08/2009 Rachel List, University of Michigan

08/2006 - 08/2009 Anthony Chen, University of Michigan

Research & Grants

Grants

07/2010 - 06/2015 The role of natural antibodies in the pathophysiology of traumatic brain injury, Co-PI, \$1,024,905, Colorado Traumatic Brain Injury Trust Fund, Type III research grant

Sponsored Research

09/2009 - 11/2009 The role of ABC294640 in traumatic brain injury, Co-PI, \$14,658, Apogee Biotechnology Cooperation

01/2010 - 01/2013 Femur shaft fracture fixation in head-injured patients – when is the right time?", Co-PI, \$99,696, Stryker

06/2020 - Present MyMobility Clinical Study: A Prospective Multicenter Longitudinal Cohort Study of the mymobility Platform, PI, Zimmer/Biomet

Service

Editorial & Review Activities

Editorial Boards

2010 - 2014 Associate Editor, Patient Safety in Surgery

2012 - 2015 Associate Editor, BMC Surgery

2013 - 2013 Lead Guest Editor, Clinical and Developmental Immunology, Ad Hoc

Manuscript Review

2007 - 2008 Regular Reviewer, Current Drug Targets

2007 - 2009 Regular Reviewer, Critical Care Medicine

2007 - 2010 Regular Reviewer, Intensive Care Medicine

2007 - 2011 Regular Reviewer, Molecular Medicine

2009 - 2009 Ad Hoc Reviewer, Scandinavian Journal of Trauma, Resuscitation and Emergency Medicine, Ad Hoc

2010 - 2010 Ad Hoc Reviewer, Journal of Orthopaedic Surgery and Research, Ad Hoc

03/2017 - Present Regular Reviewer, Journal of Arthroplasty

03/2018 - Present Regular Reviewer, JAAOS Global Research & Reviews

2019 - Present Regular Reviewer, Arthroplasty Today