

CURRICULUM VITAE

PERSONAL DATA

Name Frederic E. Martens
Date of birth 15/02/1957
Place of birth Antwerp

STUDIES

Secondary education

Koninklijk Atheneum te Berchem 1975, Latin Greek section, graduated with honours, medal of the government (prijs van de regering–ministerie van nationale opvoeding en cultuur)

University studies

Dokter in de genees- heel- en verloskunde (M.D.) V.U.B. 1982; with honours
Passed the government French language examination (level 1) 1982

Credentials

Certification radioprotection and dosimetry KUL 30-6-2015
Autorisation for use of Röntgen radiation for medical diagnosis. Issued by FANC 2015-2025
Qualified for neurosurgical training (stagemeester – maître de stage) short type (decision of the federal government may 2016)
Good Clinical Practice (GCP) – 16 november 2016
OLV Hospital is JCI accredited

Memberships

Member of the Belgian society for neurosurgery
Member of the Belgian Spine Society
Member of the North American Spine Society (NASS)
Member of the International Society for Study of the Spine (ISASS)

NEUROSURGICAL CAREER

1982-1985 Training in general surgery University Hospital Sint-Pieters Brussels (Prof Bremer)
1985-1986 Training in neurology University Hospital Sint-Pieters Brussels (Prof Noël)
1986-1990 Training in Neurosurgery University Hospital Ghent (Prof Calliauw)
Board certified as neurosurgeon 25.10.1990
Staff member department of neurosurgery AZ Stuivenberg (Antwerp) from 01/10/90 till 31/12/91
Military Service 1990-1991 Military Hospital Neder-Over-Heembeek
Staff member neurosurgery OLV Aalst since 01/01/92

Present:

Head of the department neurosurgery since 1/1/2012
Onze Lieve Vrouweziekenhuis, Moorselbaan 164, 9300 Aalst, Belgium

PUBLICATIONS

1. Martens F, Ectors P, Noel P, Hanquinet S, Faverly D: Unusual cause of cerebellar abscess: occipital dermal sinus and dermoid cyst. *Neuropediatrics* 18: 107-109, 1987
2. Martens F, Ectors P: Partially resolved problems: priorities in management of polytraumatised patients with head injuries. *Acta Neurochir (Wien)* 94: 70-73, 1988
3. Martens F, Van Velthoven V, Calliauw L: Post-traumatic brain abscess with clostridium perfringens. *Zent. bl. Neurochir.* 50:203-205, 1989
4. Martens F, Ectors P: Early management and priorities of polytraumatised patients with intracranial lesions. In: *Advances in Neurotraumatology, Neurosurgical Review Vol 12 (1989) Suppl 1* D Voth , K Sano (eds) de Gruyter , Berlin
5. Martens F, Bruyns T, Vandekerckhove T, Caemaert J, Kalala O, Calliauw L: Safety of Fraxiparine administration in neurosurgical patients. In: *Advances in Neurosurgery Vol 19*, Bock WJ, Lumenta C, Brock M, Klinger M (eds) Springer Verlag
6. Calliauw L, D'Hara M, Martens F, Vannerem L: Spinal epidural hematoma without lesions of the spine. Report of four cases. *Clin Neurol Neurosurg* 90:131-140, 1988
7. Ectors P, Martens F: Postoperative tension pneumocephalus (letter) *J Neurosurg* 69:641, 1988
8. Verstraete KLA, Martens F, Smets P, Vandekerckhove T, Meire D, Parizel PM, Van de Velde E, Calliauw L: Traumatic lumbosacral nerve root meningoceles. *Neuroradiology* 31:425-429, 1989
9. Caemaert J, Martens F, Verbeke L, Calliauw L: Interstitiele radiotherapie voor inoperabele hersentumoren. *Tijdschr Geneesk* 45:1269-1276, 1989
10. De Vulder J, De Kolvenaere L, Rolly G, Calliauw L, Caemaert J, Martens F: Spinal cord stimulation in chronic pain therapy. *Clinical Journal of pain* 6:51-56, 1990
11. Delanghe J, De Buyzere M, De Winter H, Cluy L, Caemaert J, Martens F: Estimation of brain lesion size based on quantifying CK-BB release. *Clin Chem* 36:404-405, 1990
12. Delanghe J, De Winter H, De Buyzere M, De Praetere C, Martens F, Caemaert J: Sensitive mass concentration measurements of CK-BB in cerebrospinal fluid after cerebral damage. *Eur J Clin Inv* 19:A50, 1989
13. Govaert P, Calliauw L, Vanhaesebrouck P, Martens F, Barrilari A: On the management of neonatal tentorial damage. Eight case reports and a review of the literature. *Acta Neurochir (Wien)* 106:52-64, 1990
14. Calliauw L, Vandenbogaerde J, Kalala O, Caemaert J, Martens F, Vandekerckhove T: Transesophageal echocardiography: a simple method for monitoring the patency of: ventriculoatrial shunts. *J Neurosurg* 74:1018-1020, 1991
15. Verbeke L, Martens F, Caemaert J, Calliauw L: Stereotactische radiochirurgie. Toepassing op de lineaire accelerator in het UZ te Gent. *Tijdschr Geneesk* 47:1299-1306, 1991

16. Dhooge C, Govaert P, Martens F, Caemaert J: Transventricular endoscopic investigation and treatment of suprasellar arachnoid cysts. *Neuropediatrics* 23:245-247, 1992
17. Martens F, Verbeke L: Stereotactic radiosurgery of cerebral metastases: preliminary results. *Acta Clin Belg* 48, 4:228-233, 1993
18. Martens F, Verbeke L: Radiosurgery of arteriovenous malformations on a linear accelerator: preliminary results. *Acta neurol Belg* 93:204-216, 1993
19. Martens F, Verbeke L: Radiosurgical treatment of acoustic neurinomas on a linear accelerator. *Acta Neurochirurgica (Suppl)* 122:164, 1993
20. Martens F, Verbeke L, Piessens M, Van Vyve M: Stereotactic radiosurgery of vestibular schwannomas with a linear accelerator *Acta Neurochir (Suppl)* 62:36-40, 1994
21. F. Martens, M. Van Vyve: Het "Neuronavigatiesysteem": De "ISG Viewing Wand". Een nieuwe technologische aanwinst in de neurochirurgie. *Tijdschrift voor Geneeskunde* 53,1601-1607, 1997
22. F. Martens, G. De Geest: Evaluation of the "MicroEndoscopic Distectomy": a less invasive method for lumbar discectomy. In: Enrique Ferrer (ed.) 4th International Congress on Minimally Invasive Neurosurgery. Monduzzi 1999
23. Michael Ahrens, Peter Donkersloot, , Frederic Martens, John Sherman, Jean Charles Le Huec, Anthony, Nucleus Replacement Using An In Situ Cured, Balloon Contained, Injectable Polyurethane Device: Clinical Results From Two Prospective Multi-Center European Studies. Poster. NASS Austin 2007
24. Ahrens M, Tsantrizos A, Donkersloot P, Martens F, Lauweryns P, Le Huec JC, Moszko S, Fekete Z, Sherman J, Yuan HA, Halm H: Nucleus replacement with the DASCOR disc arthroplasty device: interim two-year efficacy and safety results from two prospective, non-randomized multicenter European studies. *Spine (Phila Pa 1976)*. 2009 June 1; 34(13): 1376-84
25. MASTERS-D Study: A Prospective, Multicenter, Pragmatic, Observational, Data-Monitored Trial of Minimally Invasive Fusion to Treat Degenerative Lumbar Disorders, One-Year Follow-Up. Franke J, Manson N, Buzek D, Kosmala A, Hubbe U, Rosenberg W, Pereira P, Assietti R, Martens F, Lam K, Barbanti Brodano G, Durny P, Lidar Z, Scheufler K, Senker W. *Cureus*. 2016 Jun 13;8(6):e640. doi: 10.7759/cureus.640.
- 26 Kienzler J, Fandino J, Martens F, Hes R, Bouma G J, Anular Closure RCT Study Group. Klassen P. D :Early Two-Year Safety Data for an Annular Closure Device: Interim Results from a Multicenter, Prospective, Randomized Clinical Trial *J Neurol Surg A Cent Eur Neurosurg* 2014; 75 - p27
27. Surgical data and early postoperative outcomes after minimally invasive lumbar interbody fusion : results of a prospective, multicenter, observational data-monitored study. Pereira P, Buzek D, Franke J, Senker W, Kosmala A, Hubbe U, Manson N, Rosenberg W, Assietti R, Martens F, Barbanti Brodano G, Scheufler KM. *PLoS One*. 2015 Mar 26;10(3):e0122312. doi: 10.1371/journal.pone.0122312.
28. Referred leg pain originating from the sacroiliac joint: 6-month outcomes from the prospective randomized controlled iMIA trial. Dengler J¹, Stuessen B², Kools D³, Prestamburgo D⁴, Cher D⁵, van Eeckhoven E⁶, Erk E⁷, Pflugmacher R⁸, Vajkoczy P⁷; and the iMIA study group. Collaborators (26) :Kools

D, Lesage G, Martens F, Keymeulen H, Lecomte Y, Dengler J, Bayerl S, Pflugmacher R, Webler M, Bornemann R, Mues A, Gasbarrini A, Griffoni C, Colangeli S, Ghermandi R, Prestamburgo D, Valli F, Gaetani P, Silvani V, Minelli M, Vottorio S, Adinolfi D, Verlotta M, Cattalani A, Stuesson B, Dahlberg I. Acta Neurochir (Wien). 2016 Nov;158(11):2219-2224. Epub 2016 Sep 15.

29. Extraforaminal Lumbar Disk Herniations : Erik Van de Kelft and Frederic Martens. In : E. Van de Kelft (ed.), Surgery of the Spine and Spinal Cord. A Neurosurgical Approach. © Springer International Publishing Switzerland 2016 447

LECTURES

1. Martens F: Synoviosarcome du pied: à propos d'une observation et revue de la littérature. Conférences d'enseignement de la licence en Orthopédie (CELO) de l'U.L.B 21.03.1986 Hôpital St-Pierre Bruxelles
2. Ectors P, Martens F: Le traitement des traumatismes médullaires. Séminaires de l'A.M.U.B. 1984. St-Pietersziekenhuis Brussel
3. Ectors P, Martens F: Le traitement des lésions ostéomédullaires de la jonction thoracolombaire. CELO. Hôp St-Pierre BXL
4. Martens F, Ectors P: Early management and priorities of polytraumatised patients with intracranial lesions. International Conference on recent advances in neurotraumatology (ICRAN) Cologne 02-03.05.1986
5. Verstraete K, Martens F, Smeets P, Vandekerckhove T, Meire D, Parizel PM, Van de Velde E, Calliauw L: Traumatic Lumbosacral nerve root meningoceles. 'Interuniversitaire staf Neuroradiologie' Antwerpen 26.06.89
6. Martens F, Verstraete K, Vandekerckhove T, Calliauw L: Traumatic lumbosacral nerve root avulsion and menigocele. 'Belgische wetenschappelijke vereniging voor neurochirurgie' Leuven 18.03.1989
7. Martens F, Calle P, Caemaert J: Toepassing van Nimodipine bij subarachnoidale bloedingen. Stafvergaderingen Intensieve zorgen en spoedopname. UZ Gent 23.02.90
8. Kalala O, Vandekerckhove T, Vandenbogaerde J, Calliauw L, Caemaert J, Martens F: Functional non-invasive method for evaluation of ventriculo-atrial shunt patency. Deutsche Gesellschaft für Neurochirurgie 41st Annual Meeting Düsseldorf 27th-30th May 1990
9. Delanghe J, Martens F, Caemaert J, Vandekerckhove T, De Winter H, Calliauw L: CK-BB measurements following severe head injury: new technical aspects, physiological considerations and correlation with neurological outcome. Deutsche Gesellschaft für Neurochirurgie 41st Annual Meeting Düsseldorf 27th-30th May 1990

10. Martens F, Bruyns T, Baele G, Caemaert J, Vandekerckhove T, Kalala O, Calliauw L: Is preventive administration of fraxiparine in neurosurgical patients safe? Deutsche Gesellschaft für Neurochirurgie 41st Annual Meeting Düsseldorf 27th-30th May 1990
11. Martens F: Spina Bifida. Interuniversitaire seminaries neurochirurgie juni 91
12. Martens F, Verbeke L: Stereotactische radiochirurgie. Voordracht gehouden in het kader der Interuniversitaire seminaries neurochirurgie; 08.06.92 UZ Gent
13. Martens F, Verbeke L, Calliauw L: Radiosurgery of acoustic neurinomas: initial results on a linear accelerator. Presented at the First Euregio, Maastricht the 12th of February 1993
14. Martens F, Verbeke L, Calliauw L: Stereotactic radiosurgery of cerebral metastases: preliminary results. Presented at the winter meeting of the EANS Rome, the 20th of February 1993
15. Martens F, Verbeke L: Radiosurgical treatment of acoustic neurinomas on a linear accelerator. Presented at the 1st congress of the International Stereotactic Radiosurgery Society, Stockholm June 16-19, 1993
16. Martens F, Govaert P, Calliauw L: Hématome sous-dural aigu du nouveau-né. Etiologie et indication opératoire. Belaps, vergadering 10.11.90 te Mariemont
17. De Deyne C, Poelaert J, Vandekerckhove T, Martens F, Calliauw L, Collardyn Dr F.: Bulbus Jugularis Oxymetrie bij het ernstige neurotrauma. Belgische vereniging voor intensieve geneeskunde en urgentiegeneeskunde, 01.02.91 Brussel
18. Verbeke L, Martens F: Stereotactische radiochirurgie met een lineaire versneller. Een valabele alternatieve behandeling voor hersentumoren zoals acusticusneurinomen en solitaire hersenmetastasen. Vereniging van Vlaamse Zenuwartsen. Lustrumviering Antwerpen 16.10.93
19. I Goethals, F. Martens, M. Van Orshoven, M. Van Vyve: Medullaire neurosarcoïdose: een gevalstudie. Belgische Vereniging Neurochirurgie, Leuven 19.03.94
20. F. Martens, L. Verbeke, M. Piessens, M. Van Vyve: De stereotactische radiochirurgie met een lineaire accelerator van vestibulaire schwannomen: ervaring bij 30 patiënten. Belgische Vereniging Neurochirurgie, Leuven 19.03.94
21. F. Martens: Recente minimale invasieve technieken in de neurochirurgie. Lentevergadering Vereniging van Vlaamse Zenuwartsen., 20.06.98
22. F. Martens: the 'microendoscopic discectomy': evaluation of a less invasive method for lumbar discectomy. MIN Barcelona 1999
23. M. Van Vyve, F. Martens, E. Van de Kelft: Symposium Neurochirurgie [Neurosurgery Symposium], 'Actualiteiten in de intracraniele chirurgie', 23 January 1999, De Montil Essene.
24. M. Van Vyve, F. Martens, E. Van de Kelft: Symposium Neurochirurgie: 'De actuele behandeling van Lumbale Discushernia' 19 February 2000, De Montil Essene.

25. F.Martens: Expérience avec la microdiscectomie endoscopique lombaire postérieure. De M.E.D à METR'X. Société francophone de neurochirurgie du rachis. XIIème congrès annuel. Grenoble 26-27-28 avril 2000.
26. F.Martens : Experience with video-assisted posterior lumbar microdiscectomy. Jornadas universitarias del Raquis. Barcelona 04.05.2000.
27. M. Van Vyve, F. Martens & E. Van de Kelft: 3e Wintersymposium Neurochirurgie [Third Neurosurgery Winter Symposium] 27 January 2001, De Montil Essene.
28. M. Van Vyve, F. Martens, E. Van de Kelft & M. Wissels: Symposium Neurochirurgie: 'Het gebruik van implantaten in de Neurochirurgie' 25 January 2003, De Montil Essene.
29. M. Van Vyve, F. Martens, 5e Wintersymposium Neurochirurgie [Fifth Neurosurgery Winter Symposium] '15 jaar stereotactische bestralingen in België' 4 February 2006, De Montil Essene.
30. F. Martens: Discetomia lumbar. Resultados. Cirugia Lumbar con Tecnicas Minimamente Invasivas. Curso Dr Maximo Villalba. Santander 30.06.2006
31. J. Sherman, P. Donkersloot, F. Martens, M. Ahrens, H. Halm, A Tsantrizos, H. Yuan, J.C. LeHuec
Winners of the Best Clinical Paper titled: Two Year Interim European Clinical Results of Nucleus Replacement Using an In Situ Cured, Balloon Contained, Injectable Polyurethane Device Presented at the SAS Miami, May 2008
32. F.Martens : Clinical experience with the Barricaid, a novel anular closure device. Presented at the Korean Spine society Seoul 1/9/2012
33. F. Martens: Indications for lumbar Interbody fusions. Presented at the Lumbar Interbody fusion Course. Bordeaux France 11-12 October ,2012 October
34. F.Martens :Clinical Outcomes of interbody fusion surgery : a literature review : anterior, posterior and antero-lateral. Presented at the Lumbar Interbody fusion Course. Bordeaux France 11-12 October, 2012
35. F. Martens : minimaal invasieve posterieure fusie: hoe en waarom? Gebruik van de O-arm. Voorgesteld op de vergadering van de Belgian Spine Society. Ronse 8/9/2012
36. F.Martens : Closing defects in the anulus after discectomy. Two-years outcomes with the Barricaid prosthesis for anular closure. Presented at the Rome Spine Congress Roma 6-7 December 2012
37. Kai-Michael Scheufler, David Buzek, Neil Manson, Paulo Pereira, Wolfgang Senker, Joerg Franke, Arek Kosmala, Ulrich Hubbe, Roberto Assietti, WWJ Rosenberg, Frederic Martens : Analysis of the masters-D study: a prospective multi-center observational data-monitored study of minimally invasive fusion to treat degenerative lumbar disorders Presented at Eurospine 2-4/10 2013
38. Martens F, Lesage G, Kools D: Semi-constrained (Maverick) versus Unconstrained Compressible (M6-L) Lumbar TDR for Degenerative Disc Disease: 2-years Results of a Prospective Clinical Study. Presented at ISASS, Miami 30/4 – 2/2 2014

COLLABORATION MONITORED CLINICAL STUDIES

SI BONE - iMIA - iFuse Implant System® Minimally Invasive Arthrodesis - Protocol Number: 300134

Function: Co-Investigator

startdate: 29-07-2014

Sponsor: SI-BONE, Inc

EVOLVE - Expandable Pedicle Screws versus Fenestrated Pedicle Screws Augmented with polymethylmethacrylate (PMMA): Complications and Clinical Outcomes in Patients with Osteoporosis or Poor Bone Quality

Function: Principal Investigator

startdate: 22-10-2012

Sponsor: Alphatec Spine, Inc

BARRICAID - A Prospective, Randomised, Multicenter Study to Demonstrate the Superiority of the Barricaid® to Discectomy for Primary Lumbar Disc Herniation - Protocol Number: EUBARD-CP-001

Function: Principal Investigator

startdate: 30-03-2011

Sponsor: Intrinsic Therapeutics, Inc

MASTERS-D - A Prospective, Multicenter Observational Study on MAST™ Fusion Procedures for the Treatment of the Degenerative Lumbar Spine

Function: Principal Investigator

startdate: 22 July 2010

enddate: 22 October 2013

Sponsor: Medtronic

DASCOR™ Post Market - Evaluation of the Disc Dynamics DASCOR™ Disc Arthroplasty System

Function: Principal Investigator

startdate: 13 Dec 2005

enddate: 31 Dec 2009

Sponsor: Disc Dynamics, Inc