



## Dr. med. Frédéric Schils

- FMH Specialist in Neurosurgery

### Education

2007	Certified of the European Board of Paediatric Neurosurgery, Istanbul
2006	Attendance at the ESPN European Pediatric Neurosurgical Course, Siofolk
2005	Attendance at the ESPN European Pediatric Neurosurgical Course, Krakow
2004	Certified of the European Board of Neurosurgery, Krakow
2004	Attendance at the ESPN European Pediatric Neurosurgical Course, Edinburgh
2004	Attendance at the EANS European Training Course on Tumors and Pediatric Neurosurgery, Krakow
2003	Attendance at the EANS European Training Course on Vascular Neurosurgery, Amsterdam
2002	Attended the EANS European Training Course on Spine and Peripheral Nerves, Rome
2001	Attended the EANS European Training Course on Functional Neurosurgery- Head Injury- Pediatric Neurosurgery, Prague
1991-1998	Medical studies at the University of Liège - <sup>1st</sup> candidature in medical sciences (June 1992) Distinction - <sup>2nd</sup> candidacy in medical sciences (June 1993) Grand Distinction - <sup>3rd</sup> application in medical sciences (June 1994)
1997	Attended and passed the USMLE examination, Step 2 Clinical Science (81%), Paris
1996	Attended and passed the USMLE examination, Step 1 Basic Science (83%), Paris
1985-1991	Athénée Royal de Welkenraedt General Humanities in Latin-Mathematics (Prize for the best general results, French prize, Latin prize)

### Work Experience

since 2013	Neurosurgeon, Geneva, Switzerland, Clinique Générale Beaulieu
2005-2012	Neurosurgeon and paediatric neurosurgeon, CHC Liège, Belgium
2004-2005	Senior Registrar in Neurosurgery and Paediatric Neurosurgery at the University Hospital of Geneva, Switzerland
2003-2004	Clinical assistant then deputy head of clinic in the neurosurgery department. Head of Department, Professor of Tribolet, Geneva University Hospital, Switzerland.
2000-2003	Clinical assistant in the Department of Neurosurgery. Head of Department Professor Stevenaert, C.H.U, Liège.

1999–2000	Clinical Assistant in the Department of Neurology. Head of Department Professor Moonen, C.H.U, Liège.
1999	Clinical assistant in the Maxillo-facial and Plastic Surgery Department. Head of Department Professor Fissette, C.H.U, Liège.
1998–1999	Clinical assistant in the Cardiovascular and Thoracic Surgery Department, Head of Department Professor Limet, C.H.U. Liège.
1998	Centre Hospitalier Universitaire Vaudois, Lausanne, Switzerland. Clinical training in neurosurgery under the supervision of Professors J.-G. Villemure and N. de Tribolet.
1997	Harvard Medical School, Boston, Massachusetts, USA. Clinical training in Neurosurgery, Children's Hospital and Brigham and Women's Hospital, under the supervision of Professor Peter Black.
1994–1996	Student assistant in Professor Moonen's department (General and Human Physiology and Physiopathology). Active participation in fundamental research in the fields of cellular neurobiology, molecular biology in neuroscience and neurophysiology.
1992–1995	Trainee assistant in Professor Hennen's department (General Biochemistry and Human Biochemistry).
1993–1994	Student assistant in Professor Reznik's department (Neuroanatomy and Neuropathology).

## Awards

Major honours

- 1st Doctorate in Medicine (June 1995)
- Highest distinction
- 2nd Doctorate in Medicine (June 1996)
- The Greatest Distinction
- 3rd Doctorate in Medicine (June 1997)
- The Greatest Distinction
- 4th Doctorate in Medicine (June 1998)
- The highest distinction

DES in Neurosurgery, Universities of Liège and Geneva (1998-2004), Professors Stevenaert and de Tribolet.

## Publications

### Articles

\*Unusual CT and MRI appearance of carbon monoxide poisoning.

Schils F., Cabay J.-E., Flandroy P., Dondelinger R.F.  
Journal belge de radiologie, 1999, 82 : 13-15

\*Rupture of a post-typhoid infectious covered aneurysm of the subrenal abdominal aorta.

Schils F., Sakalihassan N., Sente J.-M., Limet R.  
Revue médicale de Liège, 1999 Oct ; 54 (10) : 786-8

\*Rupture of a thoracic aneurysm in the left main bronchus.

Schils F., Deprez A.-F., Creemers E., Jacquemin D., Limet R.  
Acta Chir Belg. 2000 Mar-Apr ; 100(2) :74-76

\*Characterization by image analysis of morphological anisotropy of poly(D,L-lactide) scaffolds in relation with in vivo axonal growth.

Blacher S., Maquet V., Schils F., Martin D., Moonen G., Schoenen J., Jérôme R., Pirard J.-P.  
Biomaterials 2003, 24: 1033-1040.

\*Implantation of either an empty carbon fiber cage or a tricortical iliac crest autograft after cervical discectomy for single level disc herniation. A prospective comparative study.

Schils F., Rilliet B., Payer M.  
Journal of Neurosurgery Spine. 2006 Apr;4(4):292-9.

\*Esthesioneuroblastoma: a case report and review of the literature.

Focan C., Kalala L., Schils F., Abraham F., Reginster P., Van Den Berge D.  
BJMO 2008;vol 2;3:168-171

- \*Esthesioneuroblastoma: a case report and literature review  
Kalala L., Focan C., Schils F., Gilles R., Abraham F., Reginster P., Van den Berge D.  
Rev Med Liège, 2009; Mar 64(3) 119-23
- \*O-Arm guided balloon kyphoplasty: preliminary experience of 16 consecutive patients.  
Schils, F  
Intraoperative Imaging, Acta Neurochirurgica Supplementum Vol 109,27 Springer Verlag, Wien 2010
- \*Orbitotemporal facial involvement in type 1 neurofibromatosis (NF1)  
Rilliet B., Pittet B, Montandon D, Narata AP, de Ribaupierre S, Schils F, Boscherini D, Di Rocco C, Ducrey N.  
Neurosurgery 2010, Apr-Jun 56(2-3): 257-70.
- \*O-Arm guided balloon kyphoplasty: prospective monocenter case series of 54 consecutive patients.  
Schils, F.  
Neurosurgery 2011, June;68:250-6.
- \*The value of dynamic cranial orthoses in the treatment of plagiocephaly  
Schils F., Jehaes M-L  
Percentile 2011, Vol 16, N°4, 122-125.
- \*A Randomized Trial Comparing 2 Techniques of Balloon Kyphoplasty and Curette Use for Obtaining Vertebral Body Height Restoration and Angular Deformity Correction in Vertebral Compression Fractures Caused by Osteoporosis  
L. Bastian, F. Schils, J.B. Tillman, G. Fueredi  
American Journal of Neuroradiology, 2012 Nov 22.
- \*A prospective multicentre registry on the accuracy of pedicle screw placement in the thoracic, lumbar and sacral level with the use of the O-arm Imaging System and Stealth Station.  
E. Van De Kelft, F. Costa, D. Van Der Planken, F. Schils  
Spine, 2012 Dec, 1;37 (25) E 1580-7.
- \*The surgeon's real dose exposure during Balloon Kyphoplasty Procedure and evaluation of the Cement Delivery System : a prospective study.  
F. Schils, W. Schoojans , L. Struelens.  
European Spine Journal, 2013, Aug;22(8):1758-64
- \*Extremity and eye lens dosimetry for medical staff performing vertebroplasty and kyphoplasty procedures.  
Struelens L, Schoonjans W, Schils F, De Smedt K, Vanhavere F.  
J Radiol Prot. 2013 Sep;33(3):635-45.
- \*Criteria for the appropriate treatment of osteoporotic vertebral compression fractures.  
Anselmetti GC, Bernard J, Blattert T, Court C, Fagan D, Fransen P, Fransen H, Sabharwal T, Schils F, Schupfner R, Siddiqi MA, Stoevelaar H, Kasperk C.  
Pain Physician 2013 Sept-Oct 16(5) :E519-30
- \*Longterm results of cervical arthroplasty with disc prosthesis. A literature review.  
Fransen P, Schils F  
Rev Med Liège. 2014 Jul-Aug ;69(7-8) :428-33.
- \*Extreme lateral interbody fusion (XLIF®): how I do it.  
Berjano P, Gautschi OP, Schils F, Tessitore E.  
Acta Neurochir (Wien). 2014 Oct 31 [Epub ahead of print].
- \*Treatment of Osteoporotic Vertebral Compression Fractures: Applicability of Appropriateness Criteria in Clinical Practice.  
Schupfner R, Stoevelaar HJ, Blattert T, Fagan D, Fransen P, Marcia S, Schils F, Siddiqi MA, Anselmetti GC.  
Pain Physician. 2016 Jan;19(1):E113-20.
- \*Percutaneous Interspinous Spacer vs Decompression in Patients with Neurogenic Claudication: An Alternative in Selected Patients?  
Meyer B, Baranto A, Schils F, Collignon F, Zoega B, Tan L, LeHuec JC.  
Neurosurgery 2018 May 1;82(5):621-629

## Scientific book chapter

\*Medical and surgical treatment of hemifacial spasm.  
Schils F, Magistris M.R., de Tribolet N.  
Surgical Management of Movement Disorders; Marcel Dekker Inc, NY, USA.in Press.

\*Vertebral fractures treated by vertebro/kyphoplasty.  
Schils F, Fransen P.  
Spine Surgery: a neurosurgical focus  
Springer In Press

### Abstracts and personal communications

\*Purification and characterisation of astrostatin.  
Rogister B., Mazy-Servais C., Leprince P., Schils F. and Moonen G.  
Acta Neurologica Belgica 1996, 2:145

\*Molecular cloning of mouse astacin C', a brain protein which is upregulated during development.  
Rogister B., Mazy-Servais C., Leprince P., Schils F., and Moonen G.  
Belgium Society of Neuroscience. First annual meeting, Brussels, 4 Nov. 1996.

\*Analysis of prognostic factors in cerebral gliomas.  
Kaschten B., Dubuisson A., Lenelle J., Martin D., Waltregny A., Schils F, Marnette V., Reznik M., Stevenaert A.  
Acta Neurologica Belgica 1998, 98 : 300-301

\*Design and functionalization of macroporous aliphatic polyester scaffolds for tissue engineering.  
Maquet V., Gautier S.,Mazza M., Schils F., Martin D., Moonen G., Jérôme R.  
RAPRA Conference, Polymers for Medical Industry Brussels, 4-5 May 2001.

\*In vitro culture of mesenchymal stem cells onto bioresorbable polymer scaffolds for tissue regeneration in the spinal cord.  
Maquet V., Schils F., Rogister B., Wislet S., Malgrange B., Martin D., Moonen G., Jérôme R.  
1st Congress of Cellular and Tissue Bioengineering, Tours, France, 26-28 Sept. 2001.

\*Use of polylactide scaffolds in different models of spinal cord lesions as a repair strategy.  
Schils F., Franzen R., Martin D., Schoenen J., Maquet V., Jérôme R.  
15th International Congress on Biomaterials Aachen, Germany 1 March 2002 (oral communication)

\*Use of porous polymer scaffolds and stem cells for spinal cord regeneration.  
Schils F., Maquet V., Franzen R., Wislet S., Rogister B., Schoenen J., Jérôme R., Martin D.  
5th international medical and health film festival Liège, Belgium, 7-9 March 2002 (poster presentation)

\*Use of polylactide scaffolds in different models of spinal cord injury to promote axonal regeneration.  
Schils F.,Franzen R., Maquet V., Schoenen J., Stevenaert A., Martin D. Société Belge de Neurochirurgie, Mont-Godine, Belgium 23 March 2002 (oral communication)

\*Use of cell-seeded polylactide scaffolds in a new model of mouse spinal cord lesion to promote axonal regeneration.  
Schils F., Franzen R., Maquet V., Nguyen L., Malgrange B., Schoenen J., Martin D.  
3rd international conference on spinal cord injury, Deauville , France 10-12 april 2002 ( poster presentation)

\*Use of porous polymer scaffolds and stem cells for spinal cord regeneration.  
Schils F., Maquet V., Franzen R., Wislet S., Rogister B., Schoenen J., Jérôme R., Martin D.  
CRESMAP(Centre de recherche en science des matériaux polymères) Annual Meeting, Université Mons-Hainaut, Belgium, 12 April 2002 (poster presentation)

\*Acute traumatic centromedullary syndrome. Clinical and radiological correlations.  
Martin D., Collignon F., Schils F., Lenelle J., Stevenaert A.  
Réunion des Neurochirurgiens de l'Est, Reims, France 25 April 2002.

- \*Combination of neural stem cells and three dimensional polylactide scaffold for transplantation in mouse spinal cord injury.  
Schils F., Maquet V., Nguyen L., Franzen R., Daniels C., Malgrange B., Schoenen J., Martin D.  
Neurosurgical joint meeting (French and German neurosurgical societies), Aachen, Germany, September 2002.  
(poster presentation)
- \*Atypical intramedullary vascular tumour lesion: about 2 observations  
Schils F., Lefranc F., Burkhardt K., Delavelle J., Franck B., Baleriaux D., Salmon I., Brotchi J., Rillet B., de Tribolet N.  
Société de Neurochirurgie de langue française, Paris, November 2004.
- \*Temporo-orbital plexiform neurofibromas: A retrospective review of 18 patients.  
Schils F., Pittet B., Montandon D., Ducrey N., de Gottrau P, and Rilliet B.  
World Neurosurgical Congress, Marrakesch, June 2005.
- \*Belgian experience with lumbar arthroplasty using a new prosthesis  
Schils F., Weickmans G, Bleien J.  
Spine Arthroplasty Society, Berlin, May 2007
- \*Clinical outcome of the Dynardi dynamic artificial disc: 6 month preliminary results  
Schils F, Kirgis A Sporns A, Etter C, Veeckmans G, Schwarzenbach O, Bleyen J.(oral presentation)  
Annual meeting of the Belgian Society of Neurosurgery, Liège, 21/3/2009.
- \*O-Arm guided kyphoplasty: preliminary experience of 16 patients  
Schils, F. (oral presentation)  
2nd Meeting of Intraoperative imaging society, IOIS, Istanbul, June 2009
- \*O-Arm guided kyphoplasty: preliminary experience of 16 patients  
Schils, F (oral presentation)  
2nd O-Arm intraoperative symposium, Leipzig, Germany, 15-17/10/2009.
- \*O-Arm guided kyphoplasty: prospective monocenter case series of 54 consecutive patients  
Schils F, Lenaerts J, Guillaume T  
Belgian Society of Neurosurgery, Gent, Belgium 26/3/2011
- \*The lateral lumbar approach  
Schils F  
31st Brugmann University Hospital Orthopaedic Day, 3/3/12 Brussels, Belgium
- \*A prospective multicenter registry on clinical value of the O-Arm Imaging System and StealthStation navigation for improving the rate of correct thoraco-lumbar pedicle screw placement.  
Van de Kelft E, Costa F, Van der Planken D, Schils F  
Belgian Society of Neurosurgery, Gent, Belgium, 10/3/2012
- \*Plagiocephaly, the neurosurgeon's point of view  
Schils, F.  
Congress of the Groupement Belge Pédiatres Francophones (GBPF), Namur, Belgium, 28/4/2012
- \*Use of Balloon Kyphoplasty Procedure in Osteoporotic Vertebral Compression Fracture, a literature overview.  
Schils, F.  
6/9/12, 1st Fracture Fragility Network Global Congress, Berlin, Germany
- \*Introduction to the RAND project and its interest for the VCF treatment .  
Schils, F.  
6/9/12, 1st Fracture Fragility Network Global Congress, Berlin, Germany
- \*Establishment of recommendations for the treatment of osteoporotic vertebral fractures using the RAND-UCLA method.  
P. Fransen, G.C. Anselmetti, J. Bernard, T. Blattert, C. Court, D. Fagan, H. Fransen, T. Sabharwal, F. Schils, R. Schupfner, M.A. Siddiqi, H. Stoevelaar, C. Kasperk.  
Neurosurgery, v58, dec 2012,426.SNCLF annual meeting, Paris, France.

## Competences

After 14 years of experience in spine surgery, Dr Frédéric Schils' main interests are minimally invasive neurosurgery, lateral and anterior approaches to the lumbar spine, spine surgery, arthroplasty surgery (cervical and lumbar), back pain, neuromodulation and osteoporotic

fractures. He has experience of cervical, thoracic and lumbar spine surgery using anterior, posterior, lateral or combined approaches to treat a variety of pathological conditions (degeneration, tumour, trauma, oncology).

In cranial surgery, he has developed a particular interest in cranial deformities, positional plagiocephaly, hydrocephalus, endoscopy, tumour and paediatric neurosurgery.

In addition to his neurosurgical practice, Dr Frédéric Schils has developed specific skills in scientific and teaching activities, research and publication, and active collaboration with the medical devices sector.

He regularly lectures at seminars and courses for spine specialists. He also acts as moderator and guest speaker at national and international meetings.

## Media

### Back pain

Swiss Medical Network: La minute santé, radio interview with Dr Schils, broadcast on LFM, 28 January 2019.

### The role of the neurosurgeon

Swiss Medical Network: La minute santé, radio interview with Dr Schils, broadcast on LFM, 4 February 2019.

## Accreditation

[Clinique Générale-Beaulieu](#)

## Specialties

[Neurosurgery](#)

[Spinal surgery](#)

## Contact

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