

**CURRICULUM VITAE**

**MR NEIL L DORWARD BSc, MB BS, FRCS(SN) MS**

**CONSULTANT NEUROSURGEON**

## GENERAL AND PERSONAL DETAILS

**NAME:** **NEIL LAWRENCE DORWARD.**

**NHS PRACTICE:** Royal Free Hospital

**DATE OF BIRTH:** 4<sup>th</sup> September 1965.

**GMC No.:** 3405581.

## QUALIFICATIONS

**BSc (Hons):** Neurosciences, London University, June 1986.

**MB BS:** St. Mary's Hospital, June 1989.

**FRCS(Eng):** Royal College of Surgeons of England, May 1993.

**FRCS(SN):** Intercollegiate Speciality Board, October 1998.

**MS:** University of London, May 1999.  
Thesis: "Development and Evaluation of Image-Guided Neuroendoscopy, with Investigation of Post-Imaging Brain Distortion and Accuracy of Frameless Stereotaxy",

## CURRENT POSITIONS AND SPECIALISATION

**PRIVATE:** Consultant Neurosurgeon, Wellington Hospital, London.

**ACADEMIC:** Honorary Senior Lecturer, Royal Free & UC Medical School, Royal College of Surgeons; Neurosurgery Course Tutor.

**NHS:** Consultant Neurosurgeon, Royal Free Hospital, London.

**SPECIALISATION:** **Pituitary region;** adenomas, craniopharyngioma, meningioma  
**Spine;** disc disease, spondylolisthesis, cervical and lumbar prosthetic disc replacement, complex spinal fixation, trauma

## EDUCATION

**SCHOOL:** 1977-1983 Scholarship to Sevenoaks School, Kent.  
**UNIVERSITY:** 1983-1989: St. Mary's Hospital Medical School, London.

## POSITIONS HELD

**SENIOR NEUROSURGERY SpR ROTATION:** 1.8.97 – 13.10.99,  
At: The National, Great Ormond Street & Charing Cross Hospitals, London.  
In: Paediatric, Skull Base, Pituitary, Vascular, Functional & General Neurosurgery.  
With: Messrs. Crockard, Powell, Thomas, Kitchen, Hayward, Harkness, Thompson, Palmer, Mendoza, Peterson & Rice-Edwards.

**NEUROSURGERY RESEARCH FELLOW & HON. LECTURER:** 1.1.96 – 31.7.97,  
As: Neurosurgical co-ordinator for an EU-funded European project in Image Guidance.  
At: The Institute of Neurology, London. With Professor DGT Thomas.

**NEUROSURGERY REGISTRAR ROTATION:** 1.9.93 - 31.12.95,  
At: Royal Free & Charing Cross Hospitals, London.  
With Messrs. Maurice-Williams, Bradford, Shieff, Illingworth, Rice-Edwards & Richards.

**LOCUM REGISTRAR IN NEUROSURGERY:** 1.8.1993 - 31.8.1993,  
At: The National Hospital, London. With Professors Symon & Thomas,

**SHO IN NEUROSURGERY:** 1.2.1993 - 31.7.1993,  
At: The National Hospital, London. With Professors Symon & Thomas,

**SHO IN ORTHOPAEDIC SURGERY:** 1.8.1992 - 31.1.1993,  
At: St. George's Hospital, London. With Mr Bendall,

**SHO IN GENERAL SURGERY:** 1.2.1992 - 31.7.1992,  
At: The Hammersmith Hospital, London. With Messrs. Wood & Standfield,

**SHO IN NEUROSURGERY AND ITU:** 1.8.1991 - 31.1.1992,  
At: The Western General Hospital, Edinburgh. With Messrs. Miller, Whittle, Steers & Russell.

**CASUALTY OFFICER:** 1.2.1991 - 31.7.1991,  
At: St. Mary's and St. Charles' Hospitals, London. With Messrs. Touquet & Challoner.

**ANATOMY DEMONSTRATOR:** 1.8.1990 - 31.1.1991,  
At: University of Southampton. With Professors Schumacker & Mayor.

**MEDICAL HOUSEMAN:** 1.2.1990 - 31.7.1990,  
At: St. Mary's Hospital, London. With Professors Sever & Johnston.

**SURGICAL HOUSEMAN:** 1.8.1989 - 31.1.1990,  
At: St. Mary's Hospital, London. With Messrs Glazer, Rosin, Mansfield, Wolfe & Nicolaidis.

## PUBLICATIONS

### **PEER-REVIEWED ORIGINAL PAPERS:**

Kidd D. Wilson P. Unwin B. **Dorward** N. Lymphocytic hypophysitis presenting early in pregnancy. [Case Reports. Letter] *Journal of Neurology*. 250(11):1385-7, 2003 Nov.

Giddings CE. Caulfield HM. **Dorward** NL. Diffuse idiopathic skeletal hyperostosis resulting in dysphagia and aspiration pneumonia. [Case Reports. Journal Article] *British Journal of Neurosurgery*. 17(5):467-8, 2003 Oct.

Stephens JW. Morganstein DL. McLaughlin JE. **Dorwood** N. Vanderpump MP. Isolated B-cell lymphoma of the pituitary region: a rare clinical entity. [Case Reports. Journal Article] *Hospital Medicine (London)*. 63(5):306-7, 2002 May.

Swayne OB. Horner BM. **Dorward** NL. The hitch stitch: an obsolete neurosurgical technique?. [Journal Article] *British Journal of Neurosurgery*. 16(6):541-4; discussion 544, 2002 Dec.

**Dorward** NL, Scatliff JH, Hayward RD. (2002) Congenital Lumbosacral Lipomas: Pitfalls in analysing the results of prophylactic surgery. *Child's Nervous System* 18:326-332.

**Dorward** NL, Paleologos TS, Alberti, O, Thomas DGT. (2002) The advantages of frameless stereotactic biopsy over frame-based biopsy. *British Journal of Neurosurgery* 16:110-118.

Stephens JW, Morganstein DL, McLaughlin JE, Dorwood N, Vanderpump MP. Isolated B-cell lymphoma of the pituitary region: a rare clinical entity. *Hospital Medicine* 63(5);306-7 2002

Paleologos TS. **Dorward** NL. Wadley JP. Thomas DGT. Barnett GH. Lozano AM. Kelly PJ. Maciunas RJ. Clinical validation of true frameless stereotactic biopsy: Analysis of the first 125 consecutive cases. [Journal: Article] *Neurosurgery*. Vol 49(4) (pp 830-837), 2001.

Hajioff D, **Dorward** NL, Wadley JP, Crockard HA, Palmer JD. (2000) Precise cannulation of the foramen ovale in trigeminal neuralgia complicating osteogenesis imperfecta with basilar invagination: technical report. *Neurosurgery* 46:1005-1008.

**Dorward** NL, Alberti O, Palmer JD, Kitchen ND, Thomas DGT. (1999) Accuracy of true frameless stereotaxy; in vivo measurement and laboratory phantom studies. *Journal of Neurosurgery* 90:160-168.

Wadley J. **Dorward** N. Kitchen N. Thomas D. Pre-operative planning and intra-operative guidance in modern neurosurgery: A review of 300 cases. [Journal: Review] *Annals of the Royal College of Surgeons of England*. Vol 81(4) (pp 217-225), 1999

Smith GT. **Dorward** NL. Coghlan JG. Bradford R. Iatrogenic anomalous drainage of the superior vena cava: An unusual cause of cerebral abscess. [Journal: Article] *British Journal of Cardiology*. Vol 6(3) (pp 160+162), 1999.

**Dorward** NL, Alberti O, Velani B, Gerritsen FA, Harkness WFJ, Kitchen ND, Thomas DGT. (1998) Post-imaging brain distortion; magnitude, correlates and impact on neuronavigation. *Journal of Neurosurgery* 88:656-662.

**Dorward NL**, Alberti O, Velani B, Gerritsen FA, Harkness WFJ, Kitchen ND, Thomas DGT. (1998) Post-imaging brain distortion; magnitude, correlates and impact on neuronavigation. *Neurosurgical Focus* 6(3):article 4.

Wadley JP, **Dorward NL**, Breewer M, Gerritsen FA, Kitchen ND, Thomas DGT. (1998) Neuronavigation in 210 cases: Further development of applications and full integration into contemporary neurosurgical practice. In: HU Lemke, MW Vannier & K Inamura (Editors). *Computer Assisted Radiology and Surgery*, Elsevier Science, Amsterdam pp.627-634.

Breeuwer M, Wadley JP, de Blik HLT, Buurman J, Desmedt PAC, Gieles P, Gerritsen FA, **Dorward NL**, Kitchen ND, Velani B, Thomas DGT et al (1998) The EASI Project – Improving Effectiveness and Quality of Image-Guided Surgery. *IEEE Trans Inf Tech* 2:156-168.

**Dorward NL**, Alberti O, Zhao J, Dijkstra A, Buurman J, Palmer JD, Hawkes D, Thomas DGT. (1998) Interactive image-guided neuroendoscopy; development and early clinical experience. *Minimally Invasive Neurosurgery* 41:31-34.

**Dorward NL**. (1998) Frameless stereotactic biopsy with the EasyGuide. *Medica Mundi* 41:33-37.

Breeuwer M, de Blik HLT, Buurman J, Desmedt PAC, Gieles P, Gerritsen FA, Wadley JP, **Dorward NL**, et al (1998) Progress in the European Applications in Surgical Interventions (EASI) Project. In: HU Lemke, MW Vannier & K Inamura (Editors). *Computer Assisted Radiology and Surgery*, Elsevier Science, Amsterdam pp.635-640.

**Dorward NL**, Palazzo F, Illingworth RD, Cheesman AD. (1997) A method of reducing CSF leakage after acoustic surgery; a technical note. *British Journal of Neurosurgery* 11:418-420.

**Dorward NL**, Alberti O, Dijkstra A, Buurman J, Kitchen ND, Thomas DGT. (1997) Clinical introduction of an adjustable rigid instrument-holder for frameless stereotactic interventions. *Computer Aided Surgery* 2:180-185.

**Dorward NL**, Malik N, Illingworth RD. (1997) Disintegration of cervical intervertebral BOP grafts with neurological sequelae: a short report. *British Journal of Neurosurgery* 11:65-8.

Alberti O, **Dorward NL**, Kitchen ND, Thomas DGT. (1997) Neuronavigation - impact on operating time. Proceedings of the 12th Meeting of the World Society for Stereotactic and Functional Neurosurgery, Lyon 1-4 July 1997. *Stereotact Funct Neurosurg* 67:100-101.

Thomas DGT, **Dorward NL**, Kingsley D et al. (1997) Clinical experience with the EasyGuide Neuro navigation system. In: HU Lemke, MW Vannier & K Inamura (Editors). *Computer Assisted Radiology and Surgery*, Elsevier Science, Amsterdam pp.757-761.

Alberti O, **Dorward NL**, Kitchen ND, Thomas DGT. (1997) Neuronavigation - impact on operating time. *Stereotact Funct Neurosurg* 68:44-48.

Maurice-Williams RS, **Dorward NL**. (1996) Extended anterior cervical discectomy without fusion: a simple and sufficient operation for most cases of cervical degenerative disease. *British Journal of Neurosurgery* 10:261-266.

O'Sullivan MG, **Dorward NL**, Whittle IR, Steers AJW, Miller JD. (1994) Management and long term outcome following subarachnoid haemorrhage and intracranial aneurysm surgery in elderly patients: An audit of 199 consecutive cases. *British Journal of Neurosurgery* 8:23-30.

**Dorward NL**, Hawkins RA, Whittle IR. (1993) Epidermal growth factor receptor activity and clinical outcome in glioblastoma and meningioma. *British Journal of Neurosurgery* 7:197-200.

Reinstein DZ, **Dorward NL** et al. (1993) 'Correctable Undetected Visual Acuity Deficit' in patients aged 65 and over attending an A & E department. *British Journal of Ophthalmology* 77:293-296.

**Dorward NL**, Davies DC. (1987) Catecholamine Pathways in the chick brain as demonstrated by glyoxylic acid fluorescence histochemistry. *Neuroscience Letts* Suppl 29:172.

#### **BOOK CHAPTERS AND INVITED ARTICLES:**

**Dorward NL**, Thomas DGT. (1999) Stereotactic frame systems: BRW-CRW. In: Alexander E & Maciunas R (Editors). *Advanced Neurosurgical Navigation*, Thieme Medical Publications, New York, pp.243-254.

**Dorward NL**, Thomas DGT. (2000) Stereotactic biopsy of tumours. In: Kaye AH & McL Black P (Editors). *Operative Neurosurgery*, Churchill Livingstone, London, pp.465-480.

**Dorward NL**, Alberti O, Velani B, Buurman J, Dijkstra A, Kitchen N, Gerritsen FA, Thomas DGT. (1998) Early clinical experience with the EasyGuide neuronavigation system and measurement of intraoperative brain distortion. In: Hellwig D, Bauer BL (Editors). *Minimally Invasive Techniques for Neurosurgery*, Springer Verlag, Berlin, pp.193-196.

**Dorward NL**. (1997) Neuronavigation - the surgeon's sextant. Editorial, *British Journal of Neurosurgery* 11:101-103.

**Dorward NL**, Bradford R. (1995) Management of spinal injuries. *Surgery* 13:i-iv.

#### **SELECTED PUBLISHED ABSTRACTS:**

**Dorward NL**, Scatliff JH, Harkness WFJ, Hayward RD. (1999) Congenital lumbosacral lipomas: a series of 50 surgically treated cases with MR imaging. Proceedings of the 132<sup>nd</sup> Meeting of the SBNS, Sheffield, 1-3 April 1998. *British Journal of Neurosurgery* 13:230.

**Dorward NL**, Alberti O, Kitchen ND, Thomas DGT. (1998) Frameless stereotactic biopsy: accuracy in phantom studies and in clinical practice. Proceedings of the 131<sup>st</sup> Meeting of the SBNS, Bristol, 3-5 September 1997. *British Journal of Neurosurgery* 12:83-84.

**Dorward NL**, Colchester ACF, Roberts P, Strong AJ, Thomas DGT. (1998) Accuracy of the VISLAN navigation system in skull base surgery and in comparison with the CRW frame in phantom studies. Proceedings of the 129<sup>th</sup> Meeting of the SBNS, Hanover, 14-17 September 1996. *British Journal of Neurosurgery* 12:482-483.

Alberti O, **Dorward NL**, Harkness WFJ, Thomas DGT. (1998) A technical note on relocatable

interactive image directed surgery for epilepsy. *Acta Neurochir* 140:837-877.

de Blik HLT, van der Heuvel ER, **Dorward N**, Breewer M, Buurman J. (1997) Image-guided neurosurgery: Advanced planning and navigation. Proceedings of the 1<sup>st</sup> International Congress on Computer Integrated Surgery, Linz, 1-5 September 1997. *Computer Aided Surgery* 2:218.

**Dorward NL**, Alberti O, Velani B, Buurman J, Gerritsen FA, Thomas DGT, Kitchen N. (1997) Image-Guided Neuroendoscopy. Proceedings of the 11<sup>th</sup> Meeting of the World Federation of Neurological Societies, Amsterdam, June 1997.

**Dorward NL**, Wadley J, Alberti O, Gerritsen FA, Buurman J, Harkness WFJ, Kitchen ND, Thomas DGT. (1997) One hundred consecutive cases with EasyGuide Neuro. Proceedings of the 1<sup>st</sup> International Congress on Computer Integrated Surgery, Linz, 1-5 September 1997. *Computer Aided Surgery* 2:209

**Dorward NL**, Alberti O, Kitchen ND, Thomas DGT. (1997) Measurement of brain distortion in tumour surgery by a neuronavigation system. Proceedings of the 130<sup>th</sup> Meeting of the Society of British Neurological Surgeons, Cambridge, 2-4 April 1997. *British Journal of Neurosurgery* 11:462-463.

**Dorward NL**, Alberti O, Velani B, Thomas DGT, Kitchen N.(1996) Early clinical experience and intraoperative brain distortion measurements with the Philips EasyGuide Neuro. Proceedings of the 2nd International Minimally Invasive Neurosurgery Meeting, Marburg, September 1996. *Acta Neurochir (Wien)* Suppl

**Dorward NL**, Illingworth RD, Cheesman AD. (1995) A technique to prevent CSF leakage after acoustic neuroma surgery. Proceedings of the 127<sup>th</sup> Meeting of the SBNS, Dublin, 5-9 September 1995. *J Neurol Neurosurg Psychiatr* 59:657.

Davies DC, **Dorward NL**. (1988) The distribution of noradrenergic and dopaminergic perikarya in the chick brain. Proceedings of the Anatomical Society of Great Britain and Ireland, Leicester, June 1986. *Journal of Anatomy* 158:224-5.

## POSTERS

Pena A, Dorward N, Harris N, Bolton MD (2000) An analysis of the concept of intracranial pressure (ICP) from the point of view of continuum mechanics 11<sup>th</sup> International Symposium on Intracranial Pressure and Brain Monitoring, Cambridge 22-26 July 2000.

Scatliff JH, Hayward RD, **Dorward NL** et al (1997) Pre- and post-operative MRI of the lumbosacral dysraphic lipoma. Exhibit at the Radiological Society of North America, December 1997.

### **COURSES AND MEETINGS ATTENDED**

1. Britspine Conference. Nottingham, UK. 27-30 April 2004.
2. Advanced Spinal Techniques Hands on Course. Vienna, Austria. 18-20 March 2004.
3. Bryan Disc Technical Day. Royal Society of Medicine, London. 9 February 2004.
4. 6<sup>th</sup> International Pituitary Meeting, Royal College of Physicians, London January 2004.
5. 53<sup>rd</sup> Annual Meeting, Congress of Neurological Surgeons, Denver, USA 18-23 October 2003.
6. Spinal Implants, International Workshop. Bordeaux, France. 24-26 September 2003.
7. 6<sup>th</sup> Advanced Spine Course, Kwa Maritane, Pilansberg, South Africa, 12-17 May 2002.
8. Tutor, Approaches to Intracranial Pathology Course (Far Lateral Approach), Royal College of Surgeons of England, November 2000, April 2002
9. Chairman of Session, Third National Clinicopathological Conference on Pituitary Disease, Royal College of Physicians, London 31/1/01
10. Advanced Techniques in Image Guided Surgery, Seefeld 12-14<sup>th</sup> January 2001.
11. Tutor, Contemporary Strategies in Neurovascular Disease (Subtemporal & Trans-sylvian Approaches), Royal College of Surgeons of England, November 2000, April 2002
12. European Society for Stereotactic and Functional Neurosurgery 14<sup>th</sup> Congress, London 25-27<sup>th</sup> October 2000
13. 7<sup>th</sup> European Workshop on Pituitary Disease, Oxford 10-13<sup>th</sup> September 2000.
14. 11<sup>th</sup> International Symposium on Intracranial Pressure and Brain Monitoring, Cambridge 22-26 July 2000.
15. 2<sup>nd</sup> International Pituitary Meeting, Royal College of Physicians, London January 2000.
16. "11<sup>th</sup> International Symposium on Brain Oedema and Mechanisms of Cellular Injury", International Meeting, Newcastle upon Tyne, June 1999.
17. "Approaches to the Skull Base", Surgical Masterclass, Hill Surgical Workshop, Royal College of Surgeons of England, London, April 1998.
18. "Midas Rex Proficiency Course", Equipment Training Course, Royal College of Surgeons of England, London, March 1998.

4. “Neuroendoscopy Workshop”, Surgical Masterclass, Hill Surgical Workshop, Royal College of Surgeons of England, London, November 1997.
5. “11th International Congress of Neurological Surgery”, Meeting of the World Federation of Neurosurgical Societies, Amsterdam, June 1997.
6. “International Minimally Invasive and Endoscopic Neurosurgery”, International Meeting, Marburg, October 1996.
7. “European Society for Stereotactic and Functional Neurosurgery”, International Meeting, Milan, June 1996.
8. “British Cervical Spine Society Annual Conference”, Southampton, November 1995.
9. “Surgery and the Law Inaugural Workshop”, Practical Medico-Legal Workshop, Royal College of Surgeons of England & The Inns of Court, June 1995.
10. “Pedicule Screw Fixation Technique Workshop”, Surgicraft UK, February 1994.
11. Royal Society of Medicine Clinical Neurosciences Section Meetings;
  - Academic Year 2003/4
  - Academic Year 2002/3
  - Academic Year 2001/2
  - Academic Year 2000/1
11. Society of British Neurological Surgeons Meetings;
  - Winchester, Autumn 2000,
  - Leeds, Spring 1999,
  - Sheffield, Spring 1998,
  - Bristol, Autumn 1997,
  - Cambridge, Spring 1997,
  - Hanover, Autumn 1996,
  - Dublin, Autumn 1995,
  - Liverpool, Spring 1995.

### **MEMBERSHIP OF SOCIETIES**

- Royal Society of Medicine; Hon Secretary of the Section of Clinical Neurosciences, Council Member
- London Consultants Association; Trustee & Board Member
- Congress of Neurological Surgeons; International Fellow
- Society of British Neurological Surgeons.
- British Cervical Spine Society.

- Queen Square Alumnus Association.
- Brain Research Association.
- London Neurovascular Group

### CITATIONS

- Marquis' Who's Who in the World 1999-2004.
- Marquis' Who's Who in Medicine and Healthcare 1999-2004.
- Specialist Medical Register, UK 1999-2004.

### PROFESSIONAL INTERESTS

- **Spinal Surgery;** all aspects including disc disease, spondylolisthesis, cervical and lumbar prosthetic disc replacement, complex spinal fixation and trauma
- **Pituitary region;** transphenoidal, endoscopic and transcranial surgery for pituitary adenomas, craniopharyngioma, and sellar meningiomas.
- **Research and Development;** Ultrasound Elastography of the brain with definition of tumour edge by slip boundary measurements.
- **Image-Guided Neurosurgery;** including Image-Guided Neuroendoscopy and Frameless Stereotactic Surgery
- Investigation and understanding of Post-Imaging Brain Distortion and Differential Pressures within Brain.
- Vascular Neurosurgery including a multidisciplinary approach involving Neurosurgery, Neurology, Interventional Radiology and Stereotactic Radiotherapy.
- Skull Base Surgery, employing both conventional and more complex techniques (e.g. Translabellar, Subtemporal and Midface approaches).

### PERSONAL INTERESTS

- Marathon Running,
- Classical Music
- History of Exploration
- Horse Riding and Eventing,
- Hill Walking.

