

Alessandra Del Felice, MD, PhD

- Italian national, born in Bern (CH) on 24 September 1978
- Assistant Professor (since November 2014), Department of Neuroscience, Section of Rehabilitation, University of Padova, Italy
- Married, 2 children (one year maternity leave, 2007, four months maternity leave, 2010)
- Registered with “Ordine dei medici”, Verona (cod. med. 08336)
- Cochrane Reviewer

I am a young academic clinician in the area of Neurorehabilitation. My basic training was as a neurologist, with a special interest in neurophysiology. My current research area allows me to draw on my experience and skills in neurophysiology to improve methodology and outcome measures in rehabilitation. I have an established track record in EEG-TMS and EEG-fMRI co-registration, neuromonitoring and neurostimulation, and EEG signal analysis. My current research portfolio includes gait analysis in Dravet syndrome, correlating this with phenotypic and genomic information; EEG-EMG co-registration during over-ground gait in healthy subjects and during exo-skeleton gait in post-stroke subject; precocious robotic lower limb rehabilitation in Stroke Unit; External Shock Wave Therapy in consciousness disorders; neurophysiological recovery mechanisms after orthopedic surgery; neurostimulation to improve rehabilitation outcomes in Parkinson Disease and neuropathic pain based on tailored paradigms; determinants in upper limb recovery. I am instrumental in setting up a registry for long-term outcome of acquired brain lesions and in determining early prognostication markers of outcome in such a population. I have created an extensive national and international collaborative research network, and I currently have several collaborations in place (Istituto Neurologico Carlo Besta, Milano, Italy; University of Verona, Italy; University of Bologna, Italy; University of Antwerp, Belgium; UCL, London, UK). I am experienced in coordinating multidisciplinary research teams (bioengineers, neuropathologists, immunologists, surgeons, geneticists and clinicians). Techniques that I master include: gait analysis, electromyography (EMG), electroencephalography (EEG) and high-density EEG, muscular and nerve ultrasound (US), transcranial magnetic stimulation (TMS), EEG-TMS and EEG-fMRI co-registrations, sleep scoring, neuromonitoring in the operation room, and EEG signal analysis. As a Cochrane reviewer, I also have a sound background in epidemiology and systematic reviews. I have over 30 peer reviewed articles to my name and my current H factor is 7, in keeping with the duration of my research career, during which I have been a visiting student at the Epilepsy Unit, Institute of Neurology, University College London, and a visiting scholar at the Epilepsy Surgery Unit, University Hospital, Innsbruck, Austria. I have experience in supervising and mentoring graduate and post-graduates students from different disciplines including MSc and PhDs as well as junior physical and rehabilitation medicine and neurology trainees, physiotherapists and neurophysiology technicians. My work has been given several awards including the 2013 Italian Clinical Neurophysiology Society Young Investigator Award, the 2008 Italian Neuroepidemiology Association “Giulia Benassi” Prize for the best neuroepidemiology work and the 2004 “G.Pampiglione “ prize for the best graduation thesis on epilepsy by the Italian Neurological Society. I am also an active clinician currently responsible for the care of a large number of people. In my career I have looked after or have been involved in the care of over 2300 patients. I have performed more than 1000 EMGs and have reported more than 500 EEGs.

Education

- 2013: Neuroscience Ph.D. at University of Verona, doctoral thesis “Innovative research techniques applied to sleep: an insight into sleep pathophysiology”

- 2009: Neurology Specialist – University of Verona, 70/70
- 1997-2003 - University: Degree in Medicine and Surgery: 110/110 summa cum laude, Università Statale Milano - Bicocca, Facoltà di Medicina e Chirurgia
- 1992-1997 - School: “Maturità Classica”- A-levels

Current Research Activity

- Gait analysis in Dravet syndrome
- EEG-EMG co-registration during over-ground gait in healthy subjects and during exo-skeleton gait in post-stroke subject
- Precocious robotic lower limb rehabilitation in Stroke Unit
- External shock wave therapy (ESWT) in disorders of consciousness (DOCs)
- Neurophysiological mechanisms of recovery after orthopedic surgery
- Neurostimulation to improve rehabilitation outcomes in Parkinson Disease and neuropathic pain based on tailored paradigms
- Determinants in upper limb recovery

Clinical activity

- November 2014 - present: Responsible at University Hospital, Padova, for: Movement Analysis Laboratory; Botulinum Toxin Clinic; Electromyography Clinic; neurorehabilitation consultant for in-patients.
- January 2013- October 2014: Neuromonitoring during Cardiopulmonary Bypass (CPB), Cardiosurgery, University Hospital, Verona, Italy
- January 2010- October 2014: Pre-surgical evaluation and follow up of pharmaco-resistant epilepsy (including standard and high density EEG interpretation, Video EEG monitoring, Sleep scoring) in collaboration with Ospedale Maggiore Cà Granda, Niguarda, Milano. University Hospital, Verona
- January 2010-December 2012: EEG readings in MCI subjects, as part of a research project on biomarkers in mild cognitive impairment (MCI). University Hospital, Verona
- December 2009- October 2014: out-patients ENG-EMG clinic, including nerve sonography. Botulinum toxin clinic under supervision. University Hospital, Verona
- 2003-november 2009 (one year maternity leave): Neurology registrar, with special training in neurophysiology (EEG, VEEG, ENG, EMG, sleep scoring). University Hospital, Verona and one year at University of Parma for special training in Sleep Medicine

Internships

- Clinical Epileptology-telemetry: July-August 2011, visiting scholar at the Epilepsy Unit, University Hospital, Innsbruck (Austria)
- Sleep Medicine: 2004 – 2005, clinical, laboratory (Sleep Disorder Clinic, polysomnographic recordings and scoring) and research activity, attached to the Sleep Medicine Centre, University Neurology Clinic, Parma
- Neurophysiology: 2003 – 2004: Istituto Neurologico Nazionale C. Besta, Milano, attached to the Neurophysiology Department

- Neurology/Neurophysiology: 2003: National Hospital for Neurology and Neurosurgery, Queen Square, London: attached to the Epilepsy Department_

Honours, prizes and other academic distinctions

- 2013: Italian Clinical Neurophysiology Society Young Investigator Award
- 2013: Young neurologist travel award, International Epilepsy Congress, Montreal
- 2012: Young neurologist travel award, European Neurological Society, Stockholm
- 2011: Best Poster Competition Award, XIV European Congress on Clinical Neurophysiology, Rome
- 2009: Young neurologist travel award, European Neurological Society, Milan
- 2008: “Premio Giulia Benassi” awarded to the best presented paper in neuroepidemiology by the Italian Neuroepidemiology Society (NEP)
- 2006: Young neurologist travel award, European Epilepsy Congress, Helsinki
- 2006: Young neurologist travel award, European Neurological Society, Lausanne
- 2006: Bursary on academic merits to attend “2nd Course on Pharmacologic treatment of epilepsy”, Eilat
- 2004: “G. Pampiglione” awarded to the best graduation thesis on epilepsy during the academic year 2002-2003 by the Italian Neurology Society (SIN)
- 2000-2001-2002: IFMSA (International Federation of Medical Students' Association) scholarship awarded on the basis of academic merit and language tests for internship (Landeskrankenhaus, Graz, Austria – Paediatrics; Magdeburg University Hospital, Germany – Paediatrics; Ernst Moritz University, Greifswald, Germany – Internal Medicine)

Languages

- Italian
- English (fluent)
- German (as mother tongue, certification of Italian-German bilingualism (Bescheinigung ueber die Kenntnis der italienischen und deutschen Sprache))

Skills

- Brain Vision Analyzer: excellent knowledge
- Geodesic (EGI, Eugene, OR): excellent knowledge, plus Cartool applications
- MATLAB: basic
- SPSS: good knowledge

Publications

Please see Annex 1
