



#### **KD Research in London UK**

#### **Prof Linda Greensmith**

Department of Neuromuscular Diseases
Queen Square Institute of Neurology
University College London



#### UK KD Team: a coherent research program from the lab to the clinic

Queen Square UCL Institute of Neurology:

Linda Greensmith, Pietro Fratta, Michael Hanna, Bilal Malik, Charlotte Spicer & Helen Devine

Oxford University:

Carlo Rinaldi, Catheryn Wooi Lim, Mitra Forouhan, Ruth Ellerington & Subhashis Banerjee

A collegiate & collaborative research group



## UK National KD Clinic at Queen Square Institute of Neurology

- National Registry established of all KD patients in UK in 2005
- KD Clinic established by Pietro Fratta at Queen Square in 2014
- Clinic joined by Carlo Rinaldi (Oxford) in 2018
- Team includes a specialist research nurse (Luca Zampedri) and a MND nurse consultant (Jan Clarke), a research physiotherapist (Gita Ramdharry)
- Dedicated National Clinic enables
  - KD Patient cohorts
  - KD natural history studies
  - KD patient biobank of samples
  - KD biomarker studies: "wet"; "imaging" eg muscle MRI: QUANTITATIVE

"TRIAL READY"

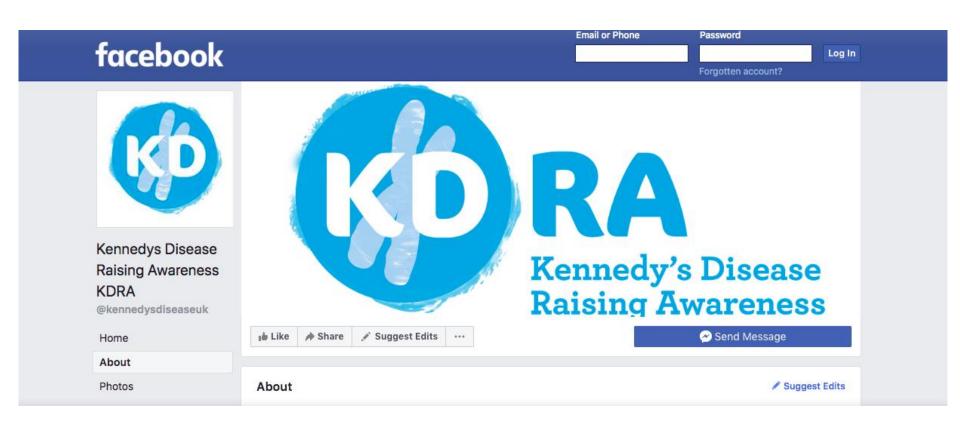




YOU TUBE: https://www.youtube.com/watch?v= fBGIuGQXVA



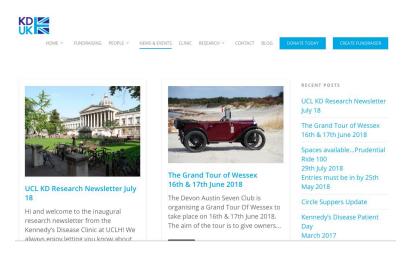
#### **Eric Mager - UK**





#### 2012/13 KD-UK Charity established by Kate Hopps: The UK's first and only charity for KD







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### First UK KD Patients Day March 2017











>140 patients, carers and healthcare workers - UK, Canada, Denmark and Australia!



### **European collaborations in KD: European Neuromuscular Centre**





Since 1990, the ENMC was started as a European initiative but gradually the workshops included researchers and clinicians from all over the world. This empowers the ENMC is mission: to establish international constortia, and clinicians from all over the world. This empowers the ENMC is mission: to establish international constortia, condition at a much feater speed than before. In the map below all countries which had at least 1 representative in an ENMC workshop in the last 20 years, are colored a shade of blue.

Over 65 countries are represented at ENMC workshops

Internationally, researchers and clinicians within the ENMC network collaborate together:

in clinical trials
in research validation the diagnostic markers for a specific neuromuscular condition
in research validation and collinicians.

A worldwide network



### 1st ENMC Workshop in KD: March 2015 TOWARDS A EUROPEAN CONSORTIUM FOR RESEARCH AND PATIENT CLINICAL MANAGEMENT IN KD





### 15 - 17 February 2019 Second ENMC meeting on KD

Organisers: Dr Pennuto (Italy), Dr Soraru (Italy), Prof Greensmith (UK), Dr Pradat (France)

Key Outcomes: 1st International Conference in KD 2019/20





# Investigating Disease Pathways in Kennedy's disease

Department of Neuromuscular Diseases
UCL Queen Square Institute of Neurology
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### Our lab research in KD is focused on two main areas

- 1. to fully understand the reasons why motor neurons and muscle degenerate in KD to *pinpoint specific targets for drug development*
- 2. Test treatment strategies in mouse model and human cells