



The University of Glasgow
Institute of Molecular, Cell and Systems Biology

College of Medical, Veterinary and Life Sciences

Davidson Building

University of Glasgow

University Avenue

Glasgow G12 8QQ
United Kingdom

gla.ac.uk

Project leader



**Prof. Darren G.
Monckton, Ph.D.**

Professor of Human
Genetics

Phone +44 141 330
6213

[Website](#)

[E-Mail](#)

Project staff

Berit Adam



Phone +44 141 330
6229

[E-Mail](#)

Institute presentation

The University of Glasgow is one of the world's leading research intensive and teaching universities with particular strengths in biomedical science and mathematical biology. The Monckton group in the Institute of Molecular, Cell and Systems Biology have pioneered new approaches to genotyping the myotonic dystrophy type 1 mutation and understanding symptomatic diversity in this one of the most variable of all human disorders. In particular, the Monckton group have established single molecule based approaches for quantifying repeat length variation in the gene associated with myotonic dystrophy type 1 and have broken new ground identifying variant repeats as a major contributor to phenotypic variation in this disorder. The Monckton group are leaders in the field in understanding the molecular genetics of myotonic dystrophy type 1 and have already accumulated the largest myotonic dystrophy type 1 mutational database.

The Monckton laboratory will be responsible for confirming the molecular diagnosis of all participants in the OPTIMISTIC study. They will also estimate the number of CTG repeats inherited by each participant, determine the extent of the increase in the number of CTG repeats that has occurred during the participants life and monitor further increases through the course of the study. These data will be related to symptomatic severity, disease progression and treatment response an integrated with data on serum biomarkers. Understanding these relationships will allow us to provide more accurate prognostic information to patients and families, facilitate more efficient and sensitive clinical trials, and identify new targets for therapeutic intervention.

For further information on myotonic dystrophy, please see the Myotonic Dystrophy Support Group website: myotonicdystrophysupportgroup.org and the Scottish Muscle Network: smn.scot.nhs.uk