Ninth European Society of Human Genetics Training Course on Cardiac Genetics

March 15-18, 2025
Manchester

This course aims at delivering up-to-date knowledge on cardiac genetics to cardiologists, genetic counsellors, clinical and molecular geneticists in training or certified. It creates the best opportunity for interaction and discussion with experts from all over Europe. The faculty combines experts from many fields of cardiac genetics known for their teaching skills. Participants are encouraged to present a clinical or genetic case for on-site discussion.

Directors of the course:
Bill Newman (Manchester) and Bart Loeys, Johan Saenen (Antwerp)

PROGRAM

Day 1 program: **Saturday, March 15, 2025**

THEME: *BASICS IN CARDIOGENETICS*

Soft drink/coffee + biscuit on arrival

15:30 – 15:45	**Course Introduction** Bill Newman & Bart Loeys
15:45 – 16:15	**A clinical geneticist's approach to inherited cardiac disorders** Bart Loeys
16:15 – 16.45	**Psychological aspects of living with ICCs: babies to seniors** Natalie Moreton (Manchester)
16:45 – 17:15	**A patient perspective on cardiogenetics** Becky Alexis Martin (Bradford)
17:15 - 17.30	**Mystery Case** Johan Saenen
17:30 – 18:00	*REFRESHMENT BREAK (juice/water)*
18:00– 19:30	**Genetic basics for Cardiologists** Clare Hopton (Manchester) **Cardiology concepts for Geneticists** Johan Saenen

Free time for evening meal in Manchester

Day 2 program: **Sunday, March 16, 2025**

THEME: *STRUCTURAL HEART and AORTIC DISORDERS*

09:00 – 10:00	**Hypertrophic cardiomyopathy** Rhys Beynon (Manchester)
10:00 - 11:00	**Dilated cardiomyopathy** Jacquelyn Hooper (Manchester)
11:00 – 11:30	*COFFEE BREAK (coffee/tea/water +biscuits)*
11.30 – 12:00	**Arrhythmogenic Ventricular Cardiomyopathy** Simon Ray (Manchester)
12:00 – 13:00	**Aortopathies** Bart Loeys
13:00 – 14:00	*LUNCH*
14:00 – 15:00	**Pathology of inherited cardiac disorders** Joe Westaby (London)

| 15.00 - 15.30 | **Molecular Autopsy** Bill Newman |

| 15:30 – 17:00 | **Imaging workshop – echocardiography/Cardiac MRI** |

Andrew Crean (Manchester) -> cardiologists

Caroline Van de Heyning (Antwerp) -> geneticists

17:00 – 17:15 *COFFEE BREAK + water/juice*

| 17.15 - 18.00 | **Mystery case** Johan Saenen |

| 18:00 – 19:00 | **Case Discussions** Johan Saenen/Bart Loeys/Bill Newman |

Free time for evening meal in Manchester

Day 3 program: Monday, March 17, 2025

THEME: *PRIMARY ELECTRICAL DISORDERS*

09:00 – 09:30	**Basic concepts in Ion channel disease** Johan Saenen
09:30 – 10:00	**Long & Short QT Syndromes** Johan Saenen
10:00 – 10:30	**Catecholaminergic polymorphic ventricular tachycardia** Luigi Venetucci (Manchester)

10:30 – 11:00 *COFFEE BREAK*

| 11:00 – 11:30 | **J-wave Syndromes, including Brugada syndrome** Charlie Pearman (Manchester) |
| 11:30 – 13:00 | **Electrophysiology workshop –** |

Johan Saenen-> geneticists

Luigi Venetucci -> cardiologists

13:00 – 14:00 *LUNCH*

14:00-15:00	**Key Note Lecture tbc**
15:00 – 15:30	**Next generation sequencing – different approaches** Bart Loeys & Bill Newman
15:30 – 16:30	**Workshop/Quiz NGS interpretation**

Kate Thomson (Oxford) > geneticists

James Eden (Manchester)> cardiologists

16:30 – 17:00 *COFFEE BREAK*

| 17:00 – 17:30 | **Mystery case discussion - conclusion** Johan Saenen |

| 17.30 - 18.30 | **Case presentations by Participants** |

Bart Loeys/ Bill Newman/Johan Saenen

19:00   **COURSE DINNER for all delegates and faculty in Manchester**

Day 4 program: Tuesday, March 18, 2025

THEME: *CONGENITAL HEART DISEASE*

    08:30 – 09:30   **Heart embryology** Marco De Ruiter (Leiden)

    09:30 – 10:15   **Genetics of Congenital Heart Disease** Bernard Keavney (Manchester)

    10:15– 10:45   **iPSC approaches to understand inherited cardiac disorders** Maaike Alaerts

10:45 – 11:00 *COFFEE BREAK*

    11:00 – 11:30   **Syndromic/metabolic inherited cardiac disorders** Kay Metcalfe (Manchester)

    11:30 – 12:00   **Cardiac Disorders in Pregnancy** Bernard Keavney (Manchester)

    12:00 – 12:30   **Management of inherited cardiac disorders in competitive and leisure athletes** Aneil Malhotra (Manchester)

    12:30 – 13:30   **Polygenic risk scores for inherited cardiac disease** James Ware (London)

13:30 – 14:15 *LUNCH*

    14:15 – 15:00   **Case presentations –** Bill Newman/Bart Loeys/Johan Saenen

    15:00   **END OF COURSE** Bart Loeys/Johan Saenen