ECFS Diagnostic Network Working Group
Meeting Report

19th Annual Meeting – February 9th - 11th 2022

Virtual meeting via Zoom

Wednesday, 9th February 2022

CFTR-RD Day: Day 1

Session 1: CFTR-RD Day Part 1

Chair: Elke De Wachter *(Brussels, Belgium)* ***– Kevin Southern*** *(Liverpool, UK)*

The virtual meeting started with welcome words by the coordinator of the ECFS Diagnostic Network Working Group, Elke De Wachter.

The first presentation was given by Carlo Castellani (*Genova, Italy*), in which he gave us more insight into the current status of the project called: "ECFS standards of care on CFTR-related disorders". The aim of this project is to update the recommendations of CFTR-RD. The core group that is working on this project is Carlo Castellani, Elke De Wachter, Christiane De Boeck, Nick Simmonds, Kevin Southern and Isabelle Sermet.

Following, Isabelle Sermet (*Paris, France*) gave an in-depth presentation on why CFTR-RD diagnosis should ultimately be decided by the level of CFTR-dysfunction.

Next, Kris De Boeck (Leuven, Belgium) defended the opposite statement: CFTR-RD diagnosis should ultimately be decided by clinical features. These two talks started a very interesting discussion within the working group.

Session 2: CFTR-RD Day Part 2

***Chairs**: **Nick Simmonds** (London, UK) – **Kris De Boeck** (Leuven, Belgium)*

Nick Simmonds (*London, UK*) gave an overview on his experience on running a CFTR-RD clinic. He explained that at the Royal Brompton Hospital they have setup a difficult CF Diagnostic Clinic in which they offer clinical assessments, CFTR functional testing (sweat test and NPD) and genetics. Next, he compared the setup of this CFTR-RD clinic with the CF clinic and he gave us insights into the benefits of having a CFTR-RD clinic separate from the CF clinic.

Afterwards, Lieven Dupont (*Leuven, Belgium*) informed us about Allergic Bronchopulmonary Aspergillosis (ABPA), inside and outside the CF clinic. He discussed the epidemiology, pathogenesis, diagnostic criteria and the role of laboratory tests in the diagnosis of ABPA. To end the presentation, he gave an overview on the therapeutic management of ABPA.

Next, Peter Middleton (*Sydney, Australia*), gave a talk on bronchiectasis, in and outside the CF clinic. He gave an overview on the pathogenesis, the etiology and the diagnosis. He stressed the need for a full workup when bronchiectasis is discovered. To end his presentation, he informed us about the possible treatments and the differences in treatment between non-CF bronchiectasis and CF bronchiectasis.

Nicholas Simmonds, the co-coordinator of the working group, closed the first day of the 19th annual DNWG meeting.

Thursday, 10th February 2022

CFTR-RD Day: Day 2

Session 3: CFTR-RD Day Part 3

***Chairs**: **Caroline Raynal** (Montpellier, France) – **Marlies Destoop** (Brussels, Belgium)*

The second meeting day started with welcome words by Caroline Raynal, giving an overview of the program of the second day of the meeting.

The first presentation was given by Emmanuelle Girodon (*Paris, France*). She gave us an overview on congenital bilateral absence of the vas deferens (CBAVD), and more specifically her point of view as a geneticist. Emmanuelle explains that by determining the cause of infertility in CBAVD, it allows to offer the appropriate care and assisted reproduction technique. Therefore, she stressed the importance of studying the CFTR gene in patients referred for CBAVD.

Next, Veerle Vloeberghs (*Brussels, Belgium*), gave a detailed presentation on CBAVD through the eyes of a fertility specialist. She gave us more insight in the anatomy, pathogenesis, and the diagnosis of CBAVD. She then discussed the course of action that is taken when a man with CBAVD wishes to have a child regarding the available assisted reproduction techniques and the necessary genetic counseling.

Afterwards, Michael Wilschanski (*Jerusalem, Israel*), gave a clear overview on both recurrent pancreatitis and primary sclerosing cholangitis. In his talk, he highlighted the possible role of CFTR dysfunction in the pathophysiology of both diseases and their role in the treatment.

The last speaker of session 3 was Smail Hadj Rabia (*Paris, France*). As a dermatologist, he discussed aquagenic wrinkling. Throughout his presentation, he guided us through the available literature on the subject. He stressed the fact that there is not enough available data on the subject to develop a clear algorithm. At the end of the presentation, he gave an overview on the therapeutic options.

Session 4: CFTR-RD Day Part 4

***Chairs**: **Elke De Wachter** (Brussels, Belgium) – **Inez Bronsveld** (Utrecht, the Netherlands)*

The 4th session started with a Pro-Con debate on "CFTR-modulators for all CFTR-RD". The first talk was given by Eitan Kerem *(Jerusalem, UK)* explaining the advantages and ethical aspects of considering CFTR-modulators for all patients with CFTR-RD. François Vermeulen *(Leuven, Belgium)* was defending the CON debate by explaining the dangers of considering prescribing CFTR-modulators for all patients with CFTR-RD. This talk gave much input for a lively discussion within the group.

Afterwards, the first of this year's Young Investigators, Eva Fürstov (*Prague, Czech Republic)*, presented her work on complex CFTR alleles in the context of altered in vitro response to CFTR modulators. The second Young Investigator Anna Demchenko *(Moscow, Russia)* informed us about her study called "Airway and lung organoids from human induced pluripotent stem cells may potentially be used for predicting cystic fibrosis patient-specific drug response".

Elke De Wachter closed the second day of the 19th annual DNWG meeting.

Friday, 11th February 2022

Session 5: CFSPID

***Chairs**: **Dorota Sands** (Warsaw, Poland) – **Karin de Winter - de Groot** (Utrecht, the Netherlands)*

The third meeting day started with welcome words by the co-coordinator of the ECFS Diagnostic Network Working Group, Nick Simmonds, giving an overview of the program of the third day of the meeting.

The first speaker, Jürg Barben *(St Gallen, Switzerland*), gave an overview on when to move from CFSPID to CF. In his talk he stressed that to date, there are no agreed guidelines of changing a diagnosis between CFTR-related disorder, CRMS/CFSPID and CF. He explained that it is about time to write a consensus of how a patient can go from CRMS/CFSPID to CF. Following, Kevin Southern *(Liverpool, UK),* discussed when to go from the designation CFSPID to the diagnosis of CFTR-RD and what is known about this. During his presentation, he emphasized the fact that CRMS/CFSPID is a designation rather than a diagnosis of disease.
Next, Anne Munck *(Paris, France),* gave a presentation called "CFSPID to nothing: when to let go?". She gave a detailed overview on the available literature on this topic. These three interesting talks gave great input for a lively discussion.

Session 6: Biomarkers

***Chairs**: **Isabelle Sermet** (Paris, France) – **Burkhard Tümmler** (Hanover, Germany)*

The first speaker of the last session, was Natalia Cirili *(Ancony, Italy).* She presented the sweat test project by the DNWG. The project is called: "A Quality Improvement Tool for Sweat Testing". The aim was to produce guidelinesfor CF centres to enhance the standard of sweat testing. The article was accepted for publication in the Journal of Cystic Fibrosis.
Next, Paola Melotti (*Verona, Italy*) gave us an overview of the beta-adrenergic sweat test landscape. In her presentation she provided informaiton on the basic concept of the diagnostic test and the differences in techniques that are used in various countries.
Following, Inez Bronsveld (*Utrecht, the Netherland*), presented the multicenter study "ECFS NPD SOP Validation Study". During her talk she explained that the main aim of the study was

to retrieve reference data for healthy controls, CF-PI and CF-PS by using standardized NPD protocol (by ECFS-CTN and CFF-TDN).

The third Young Investigator was Sophia Pallenberg (*Hannover, Germany*). She gave a presentation on her study called "The β-adrenergic sweat secretion test using the AutoBuSTeD software as a novel, high-sensitive diagnostic tool for patients with inconclusive CFTR genotype and sweat chloride concentration. The last speaker of the last day was Young Investigator Anne-Marie Mosch (*Utrecht, the Netherlands*). She presented her study on the validation of a new algorithm of the intestinal current measurement in a group of patients in a diagnostic setting.

Elke De Wachter closed the 19th Annual meeting after summarizing this very interesting meeting. She thanked Helen Chadwick for her support during this successful meeting and Nicholas Simmonds for his great help as co-coordinator. Caroline Raynal was also thanked for all her help in the organization of this meeting.

We thank all speakers, moderators, and participants for their fantastic contribution to make the 19th Annual ECFS Diagnostic Network Working Group Meeting a great success!

We are looking forward to seeing you at our next ECFS DNWG Meeting in Montpellier (9th – 11th February 2023).

11th February 2022

Elke De Wachter, ECFS DNWG Coordinator, UZ Brussel, VUB, Brussels, Belgium

Nicholas Simmonds, ECFS DNWG Co-coordinator, Royal Brompton Hospital, London, UK

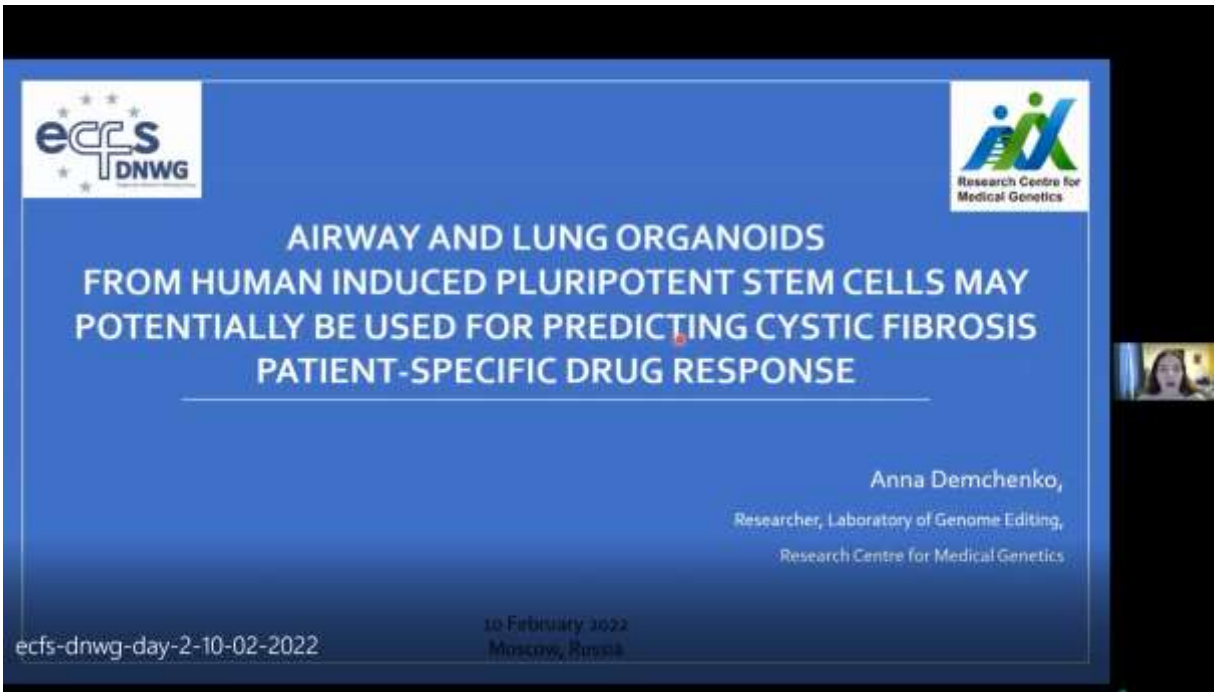
Caroline Raynal, Centre Hospitalier Universitaire de Montpellier, Montpellier, France

Marlies Destoop, ECFD DNWG Assistant, VUB, Brussels, Belgium

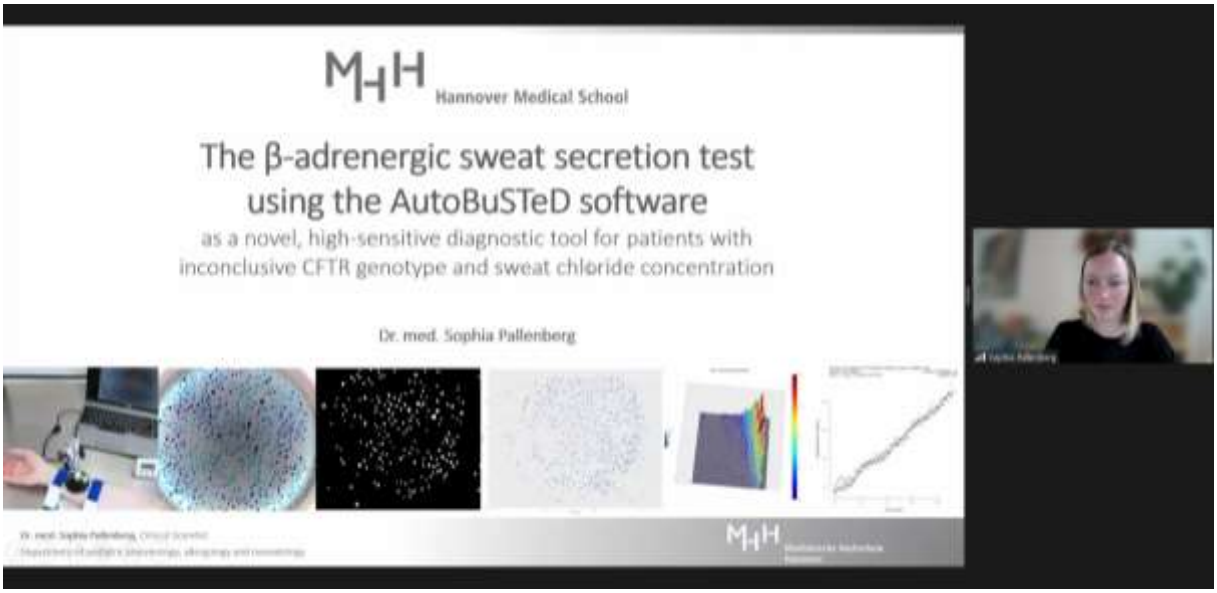
We would like to thank the Young Investigators for their great contribution:

Eva Fürstova (Prague, Czech Republic)

Anna Demchenko (Moscow, Russia)



Sophia Pallenberg (Hannover, Germany)



Anne-Marie Mosch (Utrecht, the Netherlands)

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