Collection of buccal cells for genetic investigations in Danish paternity cases

Danish paternity cases
The Section of Forensic Genetics, University of Copenhagen, performs genetic investigations in paternity cases at the request of the Danish authorities.

Proof of identity
The identity of the donor must be proven by official documentation with a photograph, e.g. identity card, passport or driver's license. The donor should be photographed in connection with sample collection. The photography has to be signed by the donor and should accompany the sample.

Letter of declaration
For each sample, a letter of declaration must be completed. The letter shall contain the following:
1. Date of sample collection
2. Name, Danish social security number (CPR number) or birthday (if the donor does not have a Danish CPR number), and signature of the donor.
3. How the identity of the donor was proven.
4. Where the sample was collected.
5. Name and signature of the collector.
6. Name and signature of the person who writes the letter of declaration.

A photograph of the donor should be attached to the letter of declaration.

Labelling of samples
An FTA card is used for collection of buccal cells. The FTA card has to be labelled with the following:
1. Date of sample collection
2. CPR number/birthday of the sample donor.
3. Name of the sample donor. For an unnamed child, the card is labelled: boy/girl
4. Signature of the donor is not required.
5. The location of sample collection.
6. The signature of the collector.

If the labelling of the FTA card is incorrect, no investigation will be performed.

In paternity cases, two samples from each person are collected, usually on different days. If the two samples are collected on the same day, collection should be performed by two different persons and the FTA cards must be labelled with the time of collection. If there are inconsistencies between the information in the Letter of declaration and the labelling of the FTA card, no investigation will be performed.

Sample collection
It is important to wear gloves when the FTA card is handled. Use the following procedure for collection of buccal cells:
1. It is recommended, that the sample donor rinses the mouth with water prior to sample collection.
2. Unpack the swab. Do not touch the foam pad.
3. Holding the plastic handle of the swab, place the foam tip inside the donor’s mouth. Rub one side of the foam pad firmly against the inside of the cheek for 20 seconds.
4. Rub the other side of the foam pad against the inside of the other cheek for 20 seconds.
5. Place the FTA card on a clean and dry surface. Open the FTA card to expose the pink circled area.
6. Press the foam pad onto the pink circled area. Transfer as much material as possible from all sides of the swab. Do not rub.
7. Discard the swab. After touching the FTA card, do not re-enter the swab into the mouth.

Forwarding of samples
The FTA card should be placed in a small envelope. If forwarding multiple FTA cards, place only one FTA card in each small envelope. Place the small envelope in a larger envelope together with the Sampling form, photograph and documents identifying the sample donor. Send the sample to:
Section of Forensic Genetics
Department of Forensic Medicine
11 Frederik V's Vej
DK-2100 Copenhagen
Denmark

Forward the sample as soon as possible after sample collection.

The Section of Forensic Genetics provides sampling kits only on the request of the Danish authorities. Please contact the requestor of the case if sampling kits are needed.
Illustrated guide for collection of buccal cells for genetic investigations

A.
- Put on gloves.
- Fill out the back of the FTA card in block letters. Fill out the following:
  - Date of sample collection and if necessary time of collection (1)
  - CPR number/birthday of the donor (2)
  - Donors name (3)
  - The signature of the donor is not required (4)
  - The location of sample collection (5)
  - The signature of the collector (6)

B.
- Unpack and take out the sterile swab. Be careful not to touch the foam pad of the swab.

C.
- Holding the plastic handle of the swab, rub one side of the foam pad firmly against the inside of the cheek for at least **20 seconds**.
- Rub the other side of the foam pad against the inside of the other cheek for **20 seconds**.

D.
- Press, without rubbing, the foam pad onto the **pink circled area** of the FTA card.
- Rotate the swab a quarter turn and press.
- Repeat until all sides of the swab has been pressed hard against the pink circled area of the FTA card.
- Repeat the above steps this time closing the flap of the FTA card over the swap and pressing it down.
- The FTA paper should change color from **pink to white**.

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If the paper does not turn white, it is recommended to do a new collection of buccal cells after the donor has rinsed his/her mouth with water.