

Statistical methods in forensic genetics

Basic and advance Workshop

Balkan and neighbour countries

Ljubljana Oct 3-6 2016

The workshop will be held in National forensic laboratory (Conference room), Vodovodna 95, 1000, Ljubljana, Slovenia.

Preparations for the exercises: Participants should bring a laptop with the following freely available software installed: Lrmix Studio 2.1.3, <http://lrmixstudio.org/download/>; Euroformix 1.8 <http://euroformix.com/>; Familias 3, <http://familias.no/english/download/>

If you do not have a laptop, contact katja.drobnic@policija.si. Assistance for installation will be provided at the workshop, if needed. Note that installation is typically only possible if you are administrator on your laptop. We encourage you to bring your own cases with you (electropherogram with RFU, Excel sheet)

Programme for Day 1, **Oct 3:** Presenters: Katja Drobnič, Aljaž Žbogar, Gavrilo Hadžič, Gregor Ključevšek, Nina Degenek, Željka Bogovac

Day 1

Time schedule		Subject	Presenter
5 min	9.30- 9.35	Welcome	Katja Drobnič
25min	9.35 - 10.00	Practical information	
30min	10.00-10.30h	Outline of workshop	
30min	10.30-11.00h	Coffee/tea break	
90min	11.00-12.30h	Checking the applications installation with the input files of NFL examples	Aljaž Žbogar, Gavrilo Hadžič, Gregor Ključevšek, Nina Degenek, Željka Bogovac
60min	12.30-13.30h	Lunch break	
60min	13.30-14.30h	Tutorials may be arranged on demand for the benefit of participants - input files regarding replicas, two suspects etc, pathway to the map, location of frequencies, correctness of D value	All
60min	14.30-15.30 h	Presentation of NFL's cases - LR in practice	Aljaž Žbogar, Gavrilo Hadžič, Gregor Ključevšek, Nina Degenek, Željka Bogovac

Programme for Day 2-3, Oct 4-5: Teachers: Peter Gill, Corina Benschop, Øyvind Bleka, Jeroen de Jong

Day 2

Time schedule		Subject	Presenter
30min	9.00-9.30h	Introduction to mixtures – basic ideas of interpretation of mixtures using peak height	Peter Gill
60min	9.30-10.30h	Complex profiles and probative value	Corina Benschop
		Introduction to the drop-out/drop-in model	
		Non-contributor tests	
30min	10.30-11.00h	Coffee/tea break	
30min	11.00-12.00h	Complex profiles and probative value (cont.)	Corina Benschop (cont.)
30min	12.30-12.30h	The ISFG DNA Commission guidelines to interpret mixtures	Peter Gill
60min	12.30-13.30h	Lunch break	
25min	13.30-13.55h	The LRmix Studio software	Jeroen de Jong
20min	13.55-14.15h	Likelihood ratios in practice: The NFI experience	Corina Benschop
30min	14.15-14.45h	Features of LRmix Studio and exemplar case ➤ Exercises using sample #26	Corina Benschop
30min	14.45-15.15h	Coffee/tea break	
45min	15.15-16.00h	Practical session using LRmix Studio: Analysis of complex cases with multiple suspects?	All
30min	16.00-16.30h	Practical session using LRmix Studio: The effect of replicates ➤ Exercises using samples #5.1-5.3	Corina Benschop
30min	16.30-17.00h	Practical session using LRmix Studio: Against expected trends ➤ Exercises using sample #26m	Corina Benschop
15min	17.00-17.15h	Daily evaluation	All

Day 3

Time schedule		Subject	Presenter
45min	9.00-9.45h	EuroForMix introduction. Overview of functionality. Using R.	Øyvind Bleka
45min	9.45-10.15	Exercise using EuroForMix. A case worked through to completion	Øyvind Bleka and Peter Gill
30min	10.15-10.45h	Coffee/tea break	
30min	10.45-11.15h	How to write a statement with Euroformix	Peter Gill
30min	11.15-12.30h	Exercise using Euroformix	All
60min	12.30-13.30h	Lunch break	
4h	13.30-17.30	Practical session using participants' own cases/additional exercises with both LRmix Studio and EuroForMix	All

Material for day 3 can be found in the dropbox folder links below: Tutorial for EuroForMix v 1.8

<https://www.dropbox.com/sh/0ept19bs84gvz1y/AACPkwYwpUCYLkRji7-lyajva?dl=0>

<https://www.dropbox.com/sh/7tou0iui7l1koy/AABJJ7IDjFqAEAl9SK9Ue-8Da?dl=0>

<https://www.dropbox.com/sh/c52bthxjk8yv53a/AACcUit15Xphal3yyRcLI5ECa?dl=0>

Programme for Day 4, Oct 6: Teacher: Thore Egeland

Day 4

Time schedule		Subject	Presenter
60min	8.30-9.30h	Basics of Relationship Inference Standard and complex cases involving mutations, inbreeding, theta-correction, silent alleles, drop-out and multiple pedigrees	Thore Egeland
60 min	9.30 -10.30	Basics of Familias 3 (available from http://familias.no/english/download/), complex pedigrees , and mutations, theta correction	Thore Egeland
30min	10.30-11.00h	Coffee/tea break	
105min	11.00-12.45h	Exercises with Familias 3 (Exercises 2.1-2.7). The exercises are from the book Relationship Inference with Familias and R by Egeland, Kling, and Mostad, but the required, selected, material (exercises , solutions , input files Ch 2 and Ch 3) are freely available	Thore Egeland Assistance NFL: Aljaž Žbogar, Gavrilo Hadžič, Gregor Ključevšek, Nina Degenek, Željka Bogovac
15min	12.45-13.00h	Discussion of exercises	All
60min	13.00-14.00h	Lunch break	
45min	14.00-14.45h	Advanced topics : Simulation, Blind search, DVI (multiple relatives), Familial searching, preparation of DNA database of unidentified bodies and relatives in Familias	Thore Egeland
30min	14.45-15.15h	Coffee/tea break	
45min	15.15-17.15h	Exercises with Familias 3 (Exercises 2.9-2.11, 2.15-2.17, 3.2, 3.1) Discussion of exercises.	Thore Egeland Assistance NFL: Aljaž Žbogar, Gavrilo Hadžič, Gregor Ključevšek, Nina Degenek, Željka Bogovac
15min	17.15-17.30h	Daily evaluation	All