

Financially supported by the International Society for Forensic Genetics

## Presentation

Dr. Ciro Di Nunzio and Dr. Anna Barbaro of the Forensic Genetics laboratories of Magna Graecia University (UMG) and of the Study of Medical and Forensic Investigations (SIMEF), respectively, are glad to announce that from 3rd to 7th September 2018 in Calabria, and specifically Catanzaro, will be the international center of the Study of DNA in Forensic Genetics.

In fact, for the first time Southern Italy will host an international event about a fascinating and complex subject, under the patronage and with financial support of the International Society for Forensic Genetics (ISFG). During 3rd and 4th September 2018 the Magna Graecia University (UMG) and the Study of Medical and Forensic Investigations (SIMEF) will host in collaboration with the Italian Forensic Genetics Group (GeFI) and the Italian Society of Human Genetics (SIGU), the first ISFG Summer School in Forensic Genetics, welcoming some of the best scientists of the ISFG as teachers.

The ISFG Summer School will provide participants with the tools to extrapolate the necessary genetic profiles needed for the study of family relationship and for the identification trace donors in criminal casework.

The courses for the processing of data associated with genetic profiles will be carried out using software used by the international scientific community: Familias and FamLinkX for the study of complex family relationships; LRmix Studio and EuroForMix for the biostatistical interpretation and deconvolution of mixed profiles from biological traces taken from the crime scene.

Additional courses devoted to the Study of DNA for forensic purposes will be offered. These will include the use of the EDNAP mitochondrial DNA database (EMPOP); the analysis of population genetic data using Next Generation Sequencing techniques; to ISO17025 procedures for setting up forensic laboratories authorized to extrapolate genetic profiles for the insertion of the profiles obtained for the Italian national DNA database.

The Summer School will be an excellent opportunity for training and education and will give the opportunity to be in contact with some of the most important and most qualified experts of the world of forensic genetics.



## SEPTEMBER 03 COURSE A

# Paternity and kinship testing including X-chromosomal markers

Presenter: Tore Egeland Co-Presenters: Daniel Kling Italian Speaker: Carla Bini

#### http://familias.name/isfg-kinship-2018/index.html

The workshop provides the necessary background for relationship inference using autosomal and X-chromosomal markers. Statistical methods are introduced and the freely available softwares Familias and FamLinkX are exemplified. The open software R is introduced, and the relevance for plotting of pedigrees and estimation of haplotype frequencies is demonstrated. Lectures will be in English.

The participants should bring a laptop with Familias, FamLinkX and R, preferably last versions, installed.

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.

#### 09:00-10:30

10:30-11:00 Coffee break

11:00-13:00

13:00-14:00 LUNCH

14:00-16:00

16:00-16:30 Coffee break



## SEPTEMBER 03 COURSE B

# DNA interpretation in criminal casework using probabilistic software (LRmix Studio and EuroForMix)

Presenter: Peter Gill Co-Presenters: Lourdes Prieto, Corina Benschop, Oyvind Bleka Italian Speaker: Filippo Barni

Participants will be trained in the theory and use of open source software in order to interpret complex DNA profiles, especially mixtures and low template samples. Both qualitative and quantitative models will be used (the latter includes peak height and stutter). The software includes LRmix Studio, Euro-ForMix, Case Solver and DNAxs. There is a strong emphasis on practical work; hence participants are encouraged to bring their own cases to the workshop.

The participants should bring a laptop with LRmix Studio, EuroForMix and R, preferably last versions, installed.

#### http://lrmixstudio.org/

http://www.euroformix.com/ (requires installation of R ver. 3.1.0 or higher)

09:00-10:30	
10:30-11:00	Coffee break
11:00-13:00	
13:00-14:00	LUNCH
14:00-16:00	
16:00-16:30	Coffee break
16:30-18:30	



## SEPTEMBER 03 COURSE C

9:00-13:00

# Mitochondrial DNA analysis and interpretation using the EMPOP database Presenter: Walther Parson

## Presenter: Walther Parson Italian Speaker: Alessandra Iuvaro

This is a practical workshop using EMPOP tools to better understand the mitochondrial phylogeny in the context of

- database queries for frequency estimations
- retrieving statistical information on common and rare haplotypes
- forensic reporting of mtDNA data
- searching and interpreting point and length heteroplasmy
- estimating the haplogroup status of an mtDNA sequence
- interpreting geographic distribution of haplotypes and haplogroups

We try to make the workshop as practical as possible and present/discuss forensic examples. **Please contribute to the workshop by bringing your own mtDNA sequences.** These can involve haplotypes from research projects, from practical forensic work or your own mtDNA. Also feel free to bring challenging haplotypes that you would like to have discussed at the workshop.

You can bring your own laptop **but it is not necessary**! In case you plan to use your own laptop, please make sure you are a registered EMPOP user (via https://empop.online).

Please send questions that you may have also before the meeting to walther.parson@gmail.com.

09:00-10:30 10:30-11:00 Coffee break 11:00-13:00 13:00-14:00 LUNCH



## SEPTEMBER 03 COURSE D

14:00-18:30

# Next generation sequencing and population studies using Snipper and Structure analysis

Presenter: Christopher Phillips Co-Presenters: Leonor Gusmao, Walther Parson Italian Speaker: Anna Barbaro

Provisional outline:

- Obtaining 1000 Genomes and Simons GDP population reference data for commonly used CE and massively parallel sequencing ancestry panels from Snipper
- MPS 101
- Ancestry analysis approaches with MPS testing
- Executing Bayes likelihood analysis and PCA plots using Snipper
- Running STRUCTURE software to define genetic clusters in a population reference dataset and forensic samples

Requirements: PC or Mac laptop; Internet link

Population data or forensic autosomal variant genotypes (e.g. an ancestry panel AIM-SNP profile or an STR profile) to be analysed at the workshop. It is suggested that students' own population data is submitted to the organisers (c.phillips(at)me.com) before the first week of August, and suitable examples can be explored in the workshop. A STRUCTURE run will be performed overnight.

14:00-16:00

*16:00-16:30 Coffee break* 



## SEPTEMBER 04 COURSE A

# Paternity and kinship testing including X-chromosomal markers

Presenter: Tore Egeland Co-Presenters: Daniel Kling Italian Speaker: Carla Bini

The participants should bring a laptop with Familias, FamLinkX and R, preferably last versions, installed.

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.

09:00-10:30	
10:30-11:00	Coffee break
11:00-13:00	
13:00-14:00	LUNCH
14:00-16:00	
16:00-16:30	Coffee break
16:30-18:30	

00.00 10.20



## SEPTEMBER 04 COURSE B

# DNA interpretation in criminal casework using probabilistic software (LRmix Studio and EuroForMix)

Presenter: Peter Gill Co-Presenters: Lourdes Prieto, Corina Benschop, Oyvind Bleka Italian Speaker: Filippo Barni

The participants should bring a laptop with LRmix Studio, EuroForMix and R, preferably last versions, installed.

http://lrmixstudio.org/

http://www.euroformix.com/ (requires installation of R ver. 3.1.0 or higher)

09:00-10:30	
10:30-11:00	Coffee break
11:00-13:00	
13:00-14:00	LUNCH
14:00-16:00	
16:00-16:30	Coffee break



## SEPTEMBER 04 COURSE D

9:00-13:00

# Next generation sequencing and population studies using Snipper and Structure analysis

Presenter: Christopher Phillips Co-Presenters: Leonor Gusmao, Walther Parson Italian Speaker: Anna Barbaro

Requirements: PC or Mac laptop; Internet link

Population data or forensic autosomal variant genotypes (e.g. an ancestry panel AIM-SNP profile or an STR profile) to be analysed at the workshop. It is suggested that students' own population data is submitted to the organisers (c.phillips(at)me.com) before the first week of August, and suitable examples can be explored in the workshop. A STRUCTURE run will be performed overnight.

### 14:00-16:00

16:00-16:30 Coffee break



## SEPTEMBER 04 COURSE E

## La Banca Dati Nazionale DNA italiana e l'accreditamento dei laboratori a norma ISO/IEC 17025.

#### **Presenter: Renato Biondo**

- Aspetti tecnici della normativa italiana applicata alla Banca Dati Nazionale del DNA;
- L'utilizzo da parte delle Forze di Polizia italiane del portale IXP per lo scambio informativo;
- La qualità del "prodotto" costituito da un profilo del DNA a norma ISO/IEC 17025;
- Uno sguardo alle tecnologie future.

In Italia, la Banca Dati Nazionale del DNA (BDN-DNA), come avviene già in Cina e Singapore, prevede l'inserimento dell'aplotipo Y del soggetto per facilitare l'dentificazione dell'autore di reati come le violenze sessuali o nel riconoscimento delle persone scomparse.

Lo scopo è porte rispondere all'investigatore di polizia quando nel caso di violenze multiple, la domanda è finalizzata a conoscere il numero esatto degli uomini che hanno commesso questo reato e che sono oggetto delle ricerche da parte degli organi inquirenti. Come d'altra parte avere l'evidenza necessaria ad escludere un innocente.

La banca dati DNA a messo a disposizione delle Forze di Polizia una piattaforma informatica denominata IXP che consente di scambiare i dati con le collaterali banche dati internazionali e, nel meccanismo previsto dalle Decisioni di Prum, ricevere direttamente, per il tramite del Punto di Contatto Nazionale (Servizio per la Cooperazione Internazionale di Polizia della Direzione Centrale della Polizia Criminale), l'esito della ricerca entro 15 minuti.

Nel prossimo futuro la tecnologia consentirà di effettuare un test del DNA in meno di un'ora e con un'affidabilità a norma ISO/IEC 17025 per rendere, la Banca Dati Nazionale del DNA uno degli strumenti indispensabili per le Forze di Polizia e per la Magistratura per perseguire gli autori di reati.

14:00-16:00

16:00-16:30 Coffee break



## **GENERAL INFORMATION**

<u>What:</u> The first Summer School in Forensic Genetics, with the best scientists of the ISFG as its teachers

When: Monday 3th - Tuesday 4th September 2018

Where: Grand Hotel Paradiso Viale Europa - Viale Europa 2, 88100 Catanzaro (Italy) For Whom: The meeting is open to researchers, PhD's, undergraduate students.

**LANGUAGE:** The official language of the Meeting is **English**.

#### Max:

#### Course A - B n. 30 students

#### Course C - D - E n. 50 students

The credits are certified by the UMG according to current legislation. The attendance is by signing the appropriate registers provided by UMG at the registration desk. Be sure to sign in!

#### A REGISTRATION DEPOSIT IS REQUESTED

Travel and accommodation expenses of participants are not included in the registration fees.

#### **REGISTRATION FEES** (VAT included)

#### **BEFORE JULY 30th**

Course A  $\notin$  146,40 (120,00 + 26,40 VAT) Course B  $\notin$  146,40 (120,00 + 26,40 VAT) Course C  $\notin$  48,80 (40,00 + 8,80 VAT) Course D  $\notin$  73,20 (60,00 + 13,20 VAT) Course E  $\notin$  48,80 (40,00 + 8,80 VAT)

#### **ON SITE**

 Course A
 € 164,70 (135,00 + 29,70 VAT)

 Course B
 € 164,70 (135,00 + 29,70 VAT)

 Course C
 € 67,10 (55,00 + 12,10 VAT)

 Course D
 € 85,40 (70,00 + 15,40 VAT)

 Course E
 € 67,10 (55,00 + 12,10 VAT)

#### ISFG members will receive a discount (20%)

The latest date for preregistration is 30 July after this date please register on site.

#### The registration fee includes:

- Conference kit
- Coffee break
- Lunch
- Attendance Certificate

\*\*\*\*\* Please inform the Administration of any food intolerances when you register.

#### How to register

The registration and payment forms are available on line at the website: www.summerschool18.com

The payment must be made to the Administrative Group "Present & Future" INTESA SAN PAOLO spa V.le Pio X 67/69 - 88100 Catanzaro IBAN IT37 U030 6904 4041 0000 0002 128 - Swift code: BCITITMM and send the confirmation email to: daniela@summerschool18.com

Registrations can be considered valid only **after having received the payment**. Forms without proof of payment will not be processed.

For general information please see the websites:

www.organizzazionechronos.it and www.summerschool18.com

## **GENERAL INFORMATION**

#### **SOCIAL EVENT**

Social Dinner, **4 September 2018 - € 60,00 pax** (VAT included) Location: Restaurant "Scogliera di Pietragrande", Montauro (CZ) with Musical entertainment

#### HOTEL ACCOMMODATION

Hotel accommodation for Summer School can be reserved through the Organising Administrators, contact daniela@summerschool18.com (deadline for accommodation reservation is 30 July 2018). Rooms will be allocated on a first come - first served basis. After the above indicated deadline, accommodation cannot be guaranteed although we will make every effort to meet the participants' needs based on availability. **In order to avoid disappointment, early bookings are recommended. No telephone reservations will be accepted.** 

Grand Hotel Paradiso - Viale Europa, 2 - Catanzaro Lido - Tel. +39 0961 32193 DUS\* € 72,00 - DWB\* € 72,00 - SWB\* € 75,00 (VAT included)

Hotel Best Western Plus Perla Del Porto - Via Martiri di Cefalonia, 64 - Catanzaro Lido tel: +39 0961 360325 DUS\* € 90,00 - DWB\* € 100,00 - SWB\* € 95,00 (VAT included)

Hotel Palace - Via Lungomare Stefano Pugliese, 221, 88100 Catanzaro Lido Tel. +39 0961 31800 DUS\* € 70,00- DW\*B € 80,00 - SWB\* € 75,00 (VAT included)

\* DUS: Double for single use - DWB: double room - SWB: single room

#### **TRANSFERS/SHUTTLE**

€ 15,00 each way VAT included.

To book the transfer/shuttle service and any question please contact

Mrs. Daniela Procopio at +39 0961 744565 or e-mail: daniela@summerschool18.com or through the website www.summerschool18.com

#### **TERMS OF PAYMENT**

Please note that your registration and/or hotel reservation cannot be processed without payment. Please submit your payment information together with the completed registration form you have to: *http://www.summerschool18.com* 

Payment for registration and Hotel reservation will be made to: "Present & Future" Event Administration INTESA SAN PAOLO spa - V.le Pio X 67/69 - 88100 Catanzaro IBAN IT37 U030 6904 4041 0000 0002 128 - BIC/Swift code: BCITITMM and send the payment confirmation email to: daniela@summerschool18.com

The participant's and sender's names must be clearly indicated on the transfer order as well for payment purposes. The copy of the payment confirmation must be sent together with the registration form.

**ATTENTION:** Registrations will be considered valid only after receiving payment. Forms without proof of payment will not be processed.

## HOTEL ACCOMMODATION



## **GRAND HOTEL PARADISO:**

Viale Europa 2, 88100 Catanzaro Lido (Italy) +39 0961 32193

## **BEST WESTERN PLUS HOTEL PERLA DEL PORTO**

Via Martiri di Cefalonia, 64, 88100 Catanzaro Lido +39 0961 360325

## **HOTEL PALACE**

Via Lungomare Stefano Pugliese, 221, 88100 Catanzaro Lido +39 0961 31800

## HOW TO REACH THE MEETING VENUE

**By air:** from the Lamezia Terme International Airport, the Hotel Grand Paradiso can be reached by car in about 40 min. Proceed along the SS280 direction Catanzaro, take the exit for Germaneto, continue along Viale Europa.

**By train/bus:** from "Catanzaro" railway station take local public transport bus, route "U" and from "Catanzaro Lido" railway station, take local transport bus route "U" (for timetables visit the website www.amcspa.it) to Hotel Grand Paradiso.

**By car:** from Catanzaro center it takes about 15 minutes: proceed along the SS280 direction Lamezia Terme, take the exit "Germaneto", continue along Viale Europa to the Hotel Grand Paradiso. From the A3 motorway it takes about 40 minutes once you exit on "Lamezia Terme - Catanzaro". Proceed along the SS280 direction "Catanzaro", take the exit to "Germaneto", continue along Viale Europa until you reach the Hotel Grand Paradiso.

From Soverato it takes about 25 min.: proceed along the Ionian highway 106 northwards toward the intersection of "Catanzaro Lido", once there turn left (direction of Lamezia Terme), continue along Viale Europa until you reach the Hotel Grand Paradiso.

#### Shuttle service from/to Lamezia Terme airport and railway station is available on request.



#### **ISFG EXECUTIVE BOARD**

Walther Person, Mechthild Prinz, John M. Butler Leonor Gusmao, Peter M. Schneider

#### SCIENTIFIC COMMITTEE

Anna Barbaro, Ciro Di Nunzio

#### **ORGANIZING SECRETARY**



## **CHRONOS** SRL

Congressi & Eventi Via XX Settembre, 42 - 88100 Catanzaro Sede Operativa: Palazzo La Russa - Piazza La Russa, 4 Tel. 0961.744565 - Fax. 0961.709250 E-mail: info@organizzazionechronos.it www.organizzazionechronos.it

#### **ADMINISTRATIVE SECRETARIAT**



Palazzo Larussa - Piazza Larussa, 4 88100 Catanzaro Tel./ Fax 0961.707833 E-mail: daniela@presentfuture.it